CALIFORNIA
OIL WORLD

PUBLISHED TWICE A MONTH

2404 WEST 7th ST.
LOS ANGELES 57, CALIFORNIA

PETROLEUM PUBLISHERS, INC.
W. C. MONROE—President and Editor
KINZIE MILLER—Vice President
LARRY O. MILLER, Advertising Manager
RICHARD SNEDDON, Contributing Editor

FRED JONES, Chicago Manager
228 No. La Salle St., Chicago 1, Ill.
HOWARD F. McCLENAHAN—Cleveland Manager
402-1010 Euclid Bldg., Cleveland 15, Ohio
The McKeown Company—New York Representatives
342 Madison Avenue, New York, N. Y.

AUDITED PAID CIRCULATION ABC

• SECOND ISSUE
APRIL, 1954
VOL. 47 • NO. 8
WHOLE NO. 1894

California Oil World is published twice a month at 2404 West 7th St., Los Angeles 57, California. Entered as Second-Class Matter, April 29th, 1944, at the post office at Los Angeles, California, under the Act of March 3, 1879. Subscription price $1 per year in U. S. and possessions, $2 in foreign countries including Canada.

Telephone DUnkirk 2-6218
April 30th, 1954

Performance of Bubblecap-Trays

By Ralph M. Young
C. F. Braun & Co.
Alhambra, California

Presented at the California Natural Gasoline Association Symposium on Fractionation Columns

Introduction

The subject of fractionation has been of direct concern to C. F. Braun & Co. for the past thirty years. We have studied, engineered, and installed a great variety of fractionation-devices during this time. One of the oldest of these devices is the bubblecap-tray. This paper gives some of the interesting highlights of our work on the performance of bubblecap-trays.

The petroleum industry has used bubblecap-trays for the past thirty-four years. This continuing popularity is due to three things. Columns equipped with bubblecap-trays can handle a wide variety of feedstocks. They give good performance over wide ranges of liquid-and-vapor-loads. And they have relatively low maintenance-cost.

The early use of the bubblecap-tray was in such applications as the separation of crude-oil into gasoline, naphtha, kerosene, and so on. In these early applications, very little in the way of fractionation was required of the bubblecap-tray. And comparatively little development-work was done on fractionation-devices. In recent years, however, rigid product-specifications and rising capital costs have required much development-work to be carried out, both by the petroleum industry and by engineering companies such as ours.

TABLE I
SAMPLE PROBLEMS

CASE No	1	2	3	4
SERVICE	DEPROPANIZER		ABSORBER	
LIQUID RATE, GPM	800	50	550	55
LIQUID DENSITY, LBS/CF	35	35	45	45
VAPOR RATE, CFS	23	29	185	26
VAPOR DENSITY, LBS/CF	1.5	1.5	1.5	1.5
PRESSURE, PSIG	275	275	500	500

Test-Equipment

The research that we carried out from 1925 to 1950 was done on partial-tray sections in the laboratory and on commercial columns in the field. As a result of these studies, we came to the conclusion that data so obtained are much too limited in application. We decided to continue our research program with a commercial-size test-unit capable of supplying a wide range of data.

Figure 1 shows a schematic diagram of the test-unit. The principal pieces of equipment are (1) a 66-inch test-column, 18 feet head-seam to head-seam. (2) A vapor-surge tank which is 72 inches in diameter and some 12-feet high. (3) A 150-horsepower blower for circulating vapor. (4) A 15-horsepower pump for circulating liquid. And (5) A liquid-cooler.

In operation, vapor passes from the top of the column into the surge-tank where liquid droplets are settled out. The vapors then flow through an orifice-run and back to the suction-side of the blower. The liquid is circulated from the bottom of the column, through a liquid-cooler, and to the top tray. The liquid-cooler maintains constant-temperature conditions in the column. Figure 2 shows a picture of the test-unit taken during the installation of test-trays.

The unit is designed to operate over a wide range of liquid-and-vapor-rates. The maximum liquid-rate is some 550 gallons per minute, and the top vapor-rate is 16,000 cubic feet per minute. In addition, we can make studies with a wide variety of hydrocarbon test-systems.

For studies on bubblecap-trays, the column normally contains three trays. These trays are fully equipped for all kinds of measurements — pressure-drop, hydraulic gradient, entrainment, liquid-level in down-pipe, and so on. In addition, the column is equipped with windows on the sides and on the top to permit visual and photographic studies.

Performance Factors

In discussing the factors that influence the performance of bubblecap-trays, we find it convenient to think in terms of a capacity-graph, shown in Figure 3. We plot vapor-rate as ordinate, and liquid-rate as the abscissa. The region of satisfac-

TABLE II
COLUMN SELECTIONS

CASE No	1	2	3	4
DIAMETER, INCHES	72	60	66	54
TRAY SPACING, INCHES	24	24	24	24
ENTRAINMENT, #/100#	1	2.5	<1	4.5
UPPER OPR LIMIT,* % OF DESIGN	125 (FLOODING)	110 (BLOWING)	115 (FLOODING)	115 (BLOWING)
LOWER OPR LIMIT,* % OF DESIGN	50 (TRAY STABILITY)	20 (PULSATION)	70 (TRAY STABILITY)	25 (PULSATION)

* LIQUID AND VAPOR

tory operation is shown as a cross-hatched island, bounded by some six conditions that limit satisfactory-Coning. Blowing. Entrainment. And performance. Pulsation. Dumping. flooding.

Pulsation—Pulsation occurs when the amount of vapor passing through a tray is so small that the caps pass vapor intermittently. The intermittent vapor-flow causes a pulsating condition on the tray and results in poor vapor-liquid contacting. A secondary effect is that between surges of vapor through the caps. liquid dumps through the cap-riser to the tray below. This short-circuiting of the liquid further decreases the tray-efficiency. Our tests show that the point at which a bubblecap-tray pulsates is influenced by three things. Cap-size. Slot-area. And properties of the hydrocarbon-system.

Dumping — Dumping results at relatively high liquid-loads when some of the upstream caps do not pass vapor. Liquid dumps through the risers of the caps that are not operating, and decreases the tray-efficiency.

Heretofore, a widely accepted view has been that dumping is caused by hydraulic gradient. That is, when the hydraulic gradient above a row of caps exceeds the pressure-drop through the caps, the caps stop bubbling and liquid will dump through the risers to the tray below. We find that hydraulic gradient has little effect on dumping.

The major cause of dumping is the kinetic - energy in the liquid-stream as it leaves the downpipe and enters the tray. When the energy in this stream is greater than the vapor driving-force across the caps, the liquid will dump to the tray below. These conclusions are based on tests of several types of tray-layouts, using different numbers of cap rows, and a variety of hydrocarbon test-systems.

We have found that an inlet-dam upstream of the first row of caps, prevents liquid from impinging on the caps and reduces the amount of vapor required to prevent dumping. In many cases, it is actually impossible to make a tray dump, when using a properly designed inlet-dam. This is a new application of a rather old device, as shown in Figure 4.

The location and height of the inlet-dam must be given careful consideration for a given service. If these two factors are not considered, the use of the dam can cause a poor distribution of liquid, and can decrease the capacity of the column.

Tray-Stability — The vapor rate needed to cause all caps on a tray to bubble is often higher than that neded to prevent dumping. And since we are interested in getting good vapor-liquid contacting, we design for vapor rates that bring all of the caps into action. When this condition exists, we say that the tray is stable.

Coning — The third factor that limits satisfactory performance is coning. Coning takes place when the combination of weir-height and the liquid-crest over the weir does not adequately seal the cap-slots. If the slots are not sealed properly, vapors can pass from the caps to the tray above without contacting liquid on the tray. This results in a marked reduction in tray-efficiency. Our tests indicate that a liquid seal of 0.5-inch will prevent coning in most cases.

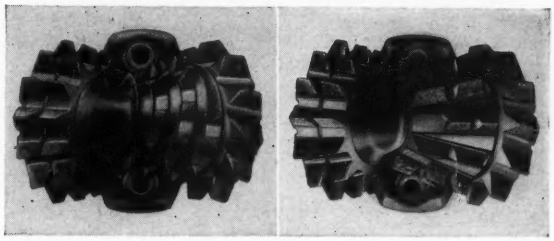
Blowing — Blowing results when the amount of vapor passing through the caps is so great that it literally tears holes in the liquid on the tray. This condition gives poor vapor-liquid contact with a consequent reduction in tray-efficiency.

The blowing-limit of a bubblecap-tray is influenced by four things. The size of the caps. The area of the bubblecap-slots. The skirt-clearance between the cap-teeth and the

Figure 2
Photograph of Column-Capacity Test-Unit

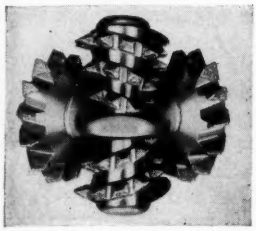
One of these REED twin-blast ROCK BITS will do a good job drilling the next formation you encounter . . .

Ask your **REED** representative for suggestions. He can often help you reduce drilling costs.

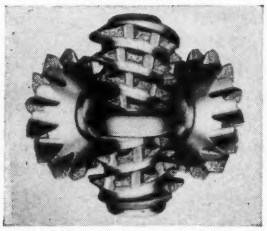


B-1 **B-2**

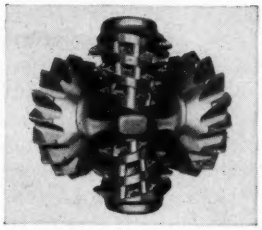
REED Barracuda Bits are available in either of the two types shown. Type B-1 has spiral teeth on the long cutter and type B-2 has axial teeth. Either type may be used according to the preference of the operator.



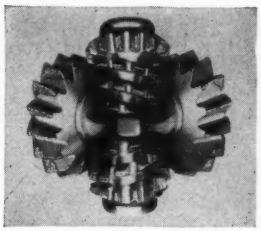
LT-3 For fast penetration of top hole and unconsolidated formations.



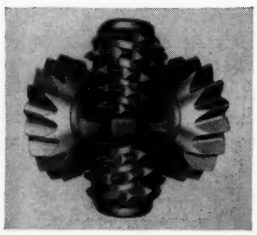
LT For drilling top hole and unconsolidated formations which are not exceptionally abrasive.



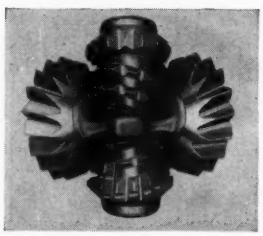
T For relatively non-abrasive formations such as shale, salt, red beds, soft limestone.



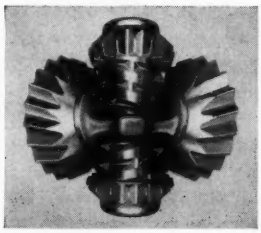
2T For penetrating soft formations that are interspersed with streaks of abrasive sands and shells.



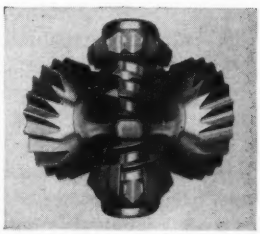
M For medium formations such as chalk, gypsum, anhydrite, etc., where penetration is 10 to 25 feet per hour.



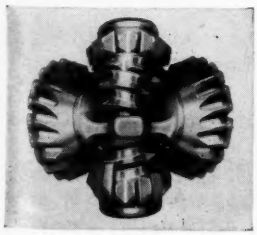
2HM For medium hard formations where abrasive materials are encountered.



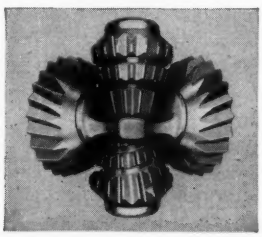
2H For moderately hard formations where a rate of penetration of 5 to 12 feet per hour is expected.



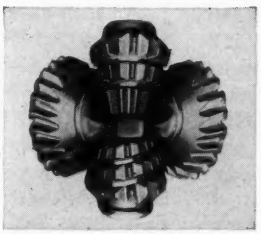
2HS-1 For heavy weight drilling of hard, abrasive formations like hard lime, chert, granite, and hard sands.



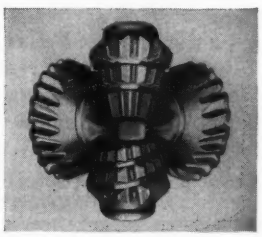
2HS-1W For drilling extremely abrasive formations with a high compressive strength.



2C For very hard and abrasive formations such as chert, hard lime and dense abrasive sands.



2CW For full gauge drilling of the hardest, most abrasive formations, where penetration is 1 to 5 feet per hour.



2CWW For chert, pyrite, granite, dolomite, and quartzite, where maximum abrasion resistance is required.

REED ROLLER BIT COMPANY

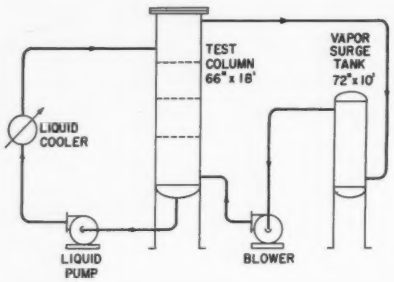
HOUSTON 1, TEXAS

THE MARK OF QUALITY

4743

FIGURE 1

COLUMN CAPACITY TEST-UNIT
SCHEMATIC FLOWDIAGRAM



tray. And the properties of the hydrocarbon-system.

Entrainment—Several undesirable effects are associated with the entrainment of liquid in a column. Off-grade overhead-product. A reduction in tray-efficiency. And possibly, decreased column-capacity.

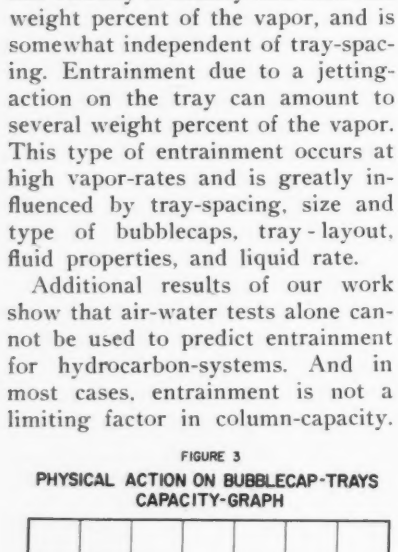
Entrainment of liquid is of two types. A relatively fine mist is carried to the tray above by superficial vapor-velocity. And large droplets of liquid are jetted from one tray to the next.

The entrainment due to superficial velocity is usually less than one weight percent of the vapor, and is somewhat independent of tray-spacing. Entrainment due to a jetting-action on the tray can amount to several weight percent of the vapor. This type of entrainment occurs at high vapor-rates and is greatly influenced by tray-spacing, size and type of bubblecaps, tray-layout, fluid properties, and liquid rate.

Additional results of our work show that air-water tests alone cannot be used to predict entrainment for hydrocarbon-systems. And in most cases, entrainment is not a limiting factor in column-capacity.

FIGURE 3

PHYSICAL ACTION ON BUBBLECAP-TRAYS
CAPACITY-GRAPH

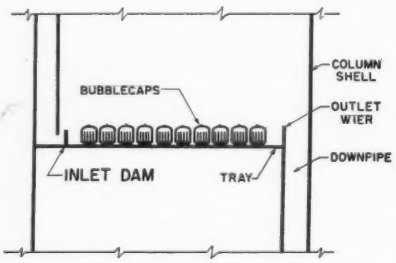


Flooding—Flooding is a phenomenon well known to all operators of commercial columns. It occurs when the level of the liquid-foam mixture in the downpipe builds up and overflows to the tray above. Liquid continues to build up in the column, resulting in an inoperable condition. In the extreme, liquid flows out the top of the column.

The flood-point of a column is reached when the liquid-and-vapor-rates cause the downpipe to completely fill with a liquid-foam mixture. The flood-point is computed from a knowledge of such things as pressure-drop, hydraulic gradient, liquid-rate, head-loss in the downpipe, and aeration-factor. The aeration-factor is used to determine the operating-level of the mixture in the downpipe from a computed clear liquid-level. It takes into account

FIGURE 4

USE OF INLET DAM
IN BUBBLECAP COLUMNS



the physical properties of the fluid mixture and its velocity. The factor ranges from 0.3 to 0.9.

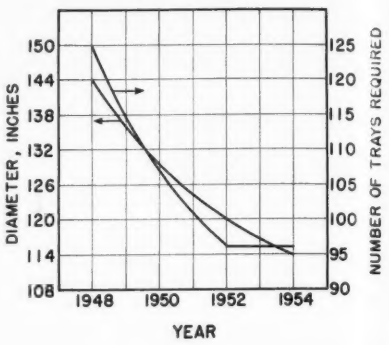
Results of Test-Work

To illustrate the results of our work on bubblecap trays, we have used a typical cyclohexane fractionator. We have made computations of column-size and number of trays that would have been predicted over the past six years according to the best information available at the time. Figure 5 gives a comparison of these computations.

Some six years ago, the column would have had 125 trays and would have been 144 inches in diameter. Today we would recommend a 114-inch column with 96 trays for the same service and operating-conditions. As shown in Figure 6, this reduction in column-size results in a savings of some $60,000 in terms of today's dollars—about one third of the column cost.

FIGURE 5

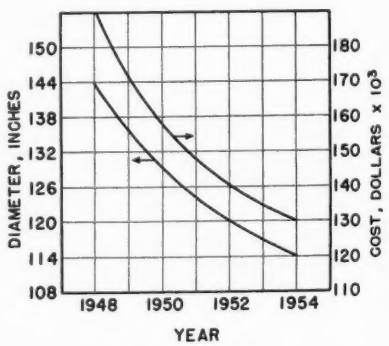
CYCLOHEXANE FRACTIONATOR



The saving in capital cost of new columns is one result of our research on bubblecap-trays. An equally important result is the improvement that can be made in the performance of many existing columns.

FIGURE 6

CYCLOHEXANE FRACTIONATOR

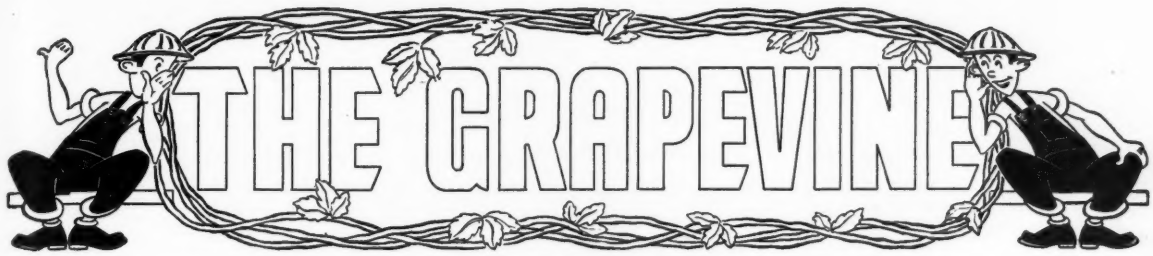


Sample Problems

As part of the Symposium, we were asked to size four bubblecap-columns for conditions specified by CNGA. The conditions are given in Table I, and the solutions in Table II.

Pacific Section A.A.P.G.

Dr. Ben Page, Associate Professor of Geology at Stanford University, will be the chief speaker at a dinner meeting to be held in Santa Barbara on Friday evening, May 14, preceding a field trip on Saturday, May 15, to the San Marcos Pass-Jalama Creek area, by geologists and paleontologists of the A. A. P. G. and S.E.P.M. groups. Dr. Page is an authority on this area, and recently published an article describing it in the Bulletin of the American Association of Petroleum Geologists.



By RICHARD SNEDDON

The Caroling Caledonians

The other morning while we were still rubbing the sleep out of our big blue eyes who should come a knocking at our front door but that delectable soul, Alex Robertson. Out of the goodness of his heart, Alex had called to transport us in his capacious and neatly groomed tan Cadillac to Santa Maria where the Western Pipe Liners' Club was about to assemble in another amazing conclave. About this latter we shall discourse more fully anon or perhaps even sooner but for the moment, be it known to all and sundry that this car ride to and from Santa Maria, involving as it did a pair of completely articulate Caledonians, was productive of more burrs than a pea whistle. The songs of Harry Lauder were given such a going over as they haven't had in many a moon and the air at times was so stiff with r's that breathing even became difficult and we were in grave danger of being asphyxiated with our own enthusiasm.

We Have A Visit With "Chubby"

On our way through Santa Barbara we stopped in and had a nice visit with Ralph Arnold at the general hospital. We found him fit as a Swedish gymnast and busier than a gnat in a hurricane. Frankly, after a short talk with the eminent geologist, we are convinced that they will never get him out of the place with anything less than an eviction order or a team of percherons. He is just having the time of his young life, writing books, laying plans for wildcat wells, and commanding the attentions of a corps of good looking nurses. His room looks like a corner of the public library and he has more callers than Aga Khan. Incidentally, one of Ralph's main writing projects is a history of California Oil and he would be real tickled to hear from anyone with pertinent information or photos. Normally, a visitor to a hospital comes out of the institution feeling sorry for the patient but we two Scots came away from this one envying Ralph Arnold no end and wondering how we might arrange a similar "soft touch".

Golf In Its Higher Aspects

Having paid our respects to the noted fault finder, we scurried on our way north with one more brief stop at Buellton for a spot of Anderson's pea soup which we found as appetising as ever. In due course we arrived at the Santa Maria Inn, one of our favorite hostelries, signed up, and then hightailed out to the Country Club. Here, after saying hello to Howard Robinson, Bill Thoburn, Prexy Frank Coyle, Henry Paulsen, Curly Working, "Joe" Joses, Bill Conley, and several other pipe line higher-ups, we changed into our golf togs and pretty soon were out there lashing the greensward as if we hated it terribly. We barely lost the first hole when Alex crashed through with a nine on us and from there on it was a nip and tuck battle until the fourteenth where we became careless and took seven approach shots and eight putts.

Flyers Find Low Ceiling

At that we gave up and trundling wearily back to the club house which was only a trifling 4 or 5 miles away, we had a swift shower, after which we snapped quickly back to subnormal. The latter festivities were most enjoyable. Until dinner we dashed about exchanging greetings with such notables as Norman Anderson, Don Purdy, Bill Davidson, Bert Haney, Johnnie White, Sam Taber, Tony Alcorn, Harold McQueen, F. O. "Mac" McKeany, Kenny Ford, Leon Kelley, Charlie House, L. L. Tarne, Ralph Paine, Walt Mitchell, Fred Simms, Fielder Jones, Nick Ugrin, and a stash of others whom we can't seem to remember at the moment. Jack Pate, the Whittier cattle baron, and Bill Abernathy, the construction capitalist, tried vainly to reach Santa Maria in Bill's private plane but Kenny Ford and his assistants generated so much wood smoke in cooking the steaks that the flight ceiling was practically zero and they were unable to get closer than Santa Barbara. **In absentia,** as they say in books, the flyers were given three hearty cheers by everyone at the whingding excepting Alex and ourself who, being of that certain nationality, gave out with two hearty cheers only which is quite enough for almost any occasion.

Admiral Nokamura's Glands

The dinner was an epicure's delight fashioned by three business biggies from the village, namely Dick Osborne, Roy Gallison, and Mark Smith, more familiarly known as Mortimer Snerd. These gentlemen did a noble job over the grill and were given a real ovation when they later showed up in the dining room. There was much wassail and badinage led very capably as usual by Frank Coyle and to keep the total performance perfectly normal, Howard Robinson was fined once more. The regularity of these Robinsonian penalties would leave one to believe that they are necessary to the Club's subsistence.) With fitting ceremony we personally were ejected from the membership roster and reinstated as a guest so we are back where we

started. One of the highlights of a well highlighted evening was Henry Paulsen's account in the Nipponese dialect of Admiral Nokamura's gland operation. This is a classic bit of oriental folklore which Henry presents most entertainingly.

And So To Bed

At the close of the dinner, Frank Coyle turned the gavel over to the new prexy, Norman Anderson, the Richfield pipe line chief, and announced the election of Nick Ugrin, the Union Oiler as vice president, and Fielder Jones, the Texaco chap as secretary. Thereafter, Bill Conley dished out golf prizes with a lavish hand. As a matter of fact we got one ourself for returning to the Club House without having to be carried and Alex Robertson was given one for not having to carry us. The balance of the evening was dissipated in an interesting game played with blue and red disks, in which Tony Alcorn turned out to be pretty much of an expert. Thanks to Frank Coyle, Charlie House, Kenny Ford and all their aides, the party was fully up to the pipeliners' standard and everybody had a wonderful time.

Breakfast With The Ladies

Bright and early the next morning we had breakfast at the Santa Maria Inn with Mr. and Mrs. Henry Paulsen and Mr. and Mrs. Curly Working, the ladies looking very lovely in their morning ensembles with bright yellow sweaters, and the gentlemen looking as if they had been to a pipeliners' whingding, if you know what we mean. While engaged in the disposition of a stack of hotcakes we seemed to hear a familiar voice close by and upon investigation found one of our former Union Oil associates sitting nearby — Miss E. H. "Betsy" Burroughs, one of the best abstractors in the business who was librarian at the research lab down at Wilmington when we were cutting our oil teeth as it were.

Founders' Day Celebration

In order to keep the record straight, leave us make it clear that there will be no dedication ceremony in connection with the PPP barbecue at Brea on May 8, 1954. That part of the program is off, and instead the gathering will do honor to the boys who first came up with the Petroleum Production Pioneer idea, to wit, Henry Grinnell, Lou Bronzan, and Glenn Merkley. Back in 1944 these three lads assembled a group of well known production people to present to them their projected plan. The scheme was given whole hearted approval and in no time at all PPP was a pretty substantial body and growing like a well nurtured dandelion. Today, it numbers well over 2000 and includes in its membership many of California's most interesting and most productive people — men who have been responsible for important contributions to the development of the industry in the past, and men who are contributing at the present time to the modernization program that will shape the policies and practices of the future.

INDUSTRY'S LEADING SOUTHPAW

The little village of Los Nietos, which nestles snugly behind the little village of Santa Fe Springs, is famous for many things, but none more exciting than the fact that it is the birthplace of that famous person, Charles Samuel Perkins, manager of purchases for Union Oil Company of California. After being educated in Whittier grammar and high schools, Charley spent the first four years of his industrial life with National Supply Company, and Mohawk Oil Company, learning something of the equipment, methods, and lingo that then prevailed in the oil fields.

In 1926 he began work with Union Oil Company as a clerk in the Comptroller's Department at Santa Fe Springs and during the succeeding 28 years progressed steadily through all stages of stores, warehousing, and buying to his present eminence. He became assistant manager of purchases in 1945 and was boosted to his present post in 1953 when E. H. "Buck" Weaver went back to Washington, D.C. to take over in a government job. Charley has been active in both local and national purchasing associations over the years and besides building up a reputation as a good fellow has attained high standing as a well informed and thoroughly capable purchasing executive.

In his spare time exercises, he is one of the fastest southpaw gin rummy players in these parts. All at the same time he can play the game, keep score, sustain his stand in any argument, and pocket your money, without the slightest bit of lost time or motion. He is also a pretty good portside divot lofter and has been known to pick up a few beans in this business too. He is a member and past Big Shot of that ultra exclusive coterie, the Nineteeners, and is by all means an interesting, entertaining, and altogether likable individual.

Take Heed Ye Putter-Offers!

By the way, as a lesson to all laggards, slow pokes, dawdlers, and procrastinators, we might point out that within an hour of receiving his letter of invitation to the PPP barbecue, John O. Hills, the eminent aviating equestrian, had the coupon filled out, his check attached, and the whole caboodle on its way back to the ticket dispensary. For this bit of fast action John was awarded Ducat No. 1 with clusters and will be cited before Admiral Hudson Drake at an appropriate time when he will be invested with the Order of the Silver Jigger. Thereafter his associate tonic tossers will have to remove their mustaches in his presence. Of course, tardiness can be rewarding too under the right circumstances. Frixample, when Uncle Philabeg fell suddenly ill of the ague one time we thought he was a goner and we summoned the local doctor to come up as fast as he could make it. The Doc never did show up so Uncle Phil got better. Anyway, the PPP meeting convenes at 3 pm for the preliminary tonsil loosening exercises, the barbecue steaks will be on the table piping hot at 5 pm, and if you ain't there to get yours, well, whose fault is that?

New Yorker Reports

Had a letter the other day from

G. P. land man Parke Jackson, left, discusses a lease with San Joaquin Valley rancher A. H. Walker. Administering leases is one of land man's most important functions.

He turns ideas into action

In the oil business, the land man is the key link in the chain of people who turn good geological ideas into successful wells.

Through its land men General Petroleum does business with thousands of individuals and business firms in the West. Over 1700 leases covering nearly a million acres are signed and administered by these skilled men.

In the more than forty years that General Petroleum has been doing business with land owners in California, we have built an enviable reputation for fair dealing.

If you are in the oil business in California with something to sell or something to buy, you will find, just as so many landowners in California have found, that it pays to talk to General Petroleum first.

GENERAL PETROLEUM CORPORATION

(A Flying Red Horse Company)

Mobilgas

SOCONY-VACUUM

AD 2-500

Charley Dodson, now petroleum engineer for the National City Bank of New York, and he tells us that he has been meeting lots of outlawed Angelenos in the Big City. Charley was a partner not long ago in the firm of Stanley, Stolz and Dodson here, and prior to that was professor of petroleum engineering at USC. He is pretty nice people and has lots of friends outthisaway to whom he sends his best wishes. We were in New York only once in our lifetime and then for only a very small part of a day. It was during summer — that we remember distinctly because we returned to home base with a badly sunburned epiglottis from looking too long and too vacantly at the high buildings.

Of Jumbo Flying Fish

Also have a note from Harold Rowland, on the stationery of the Hotel La Siesta in Mazatlan, Mexico, where he went with his son Roy a short time ago to recuperate from a nearly fatal domino accident. And is he recovering? Well, what do you think? He sends enclosed a photo of himself and Roy with a string of junior whales that must have weighed 1000 lbs. altogether. They landed 4 sailfish and three marlin the first day and nine more sailfish on the second day. One of the latter was a 127-pounder that Roy brought in on 27-lb. light tackle. They were still hard at it at the time Harold wrote. He felt fairly sure, however, that after catching a few more of these jumbo size flying fish, he would be strong enough to come home and try another flutter in the domino arenas. Meantime he has fallen madly in love with Mazatlan — calls it the poor man's paradise — and if he loses his next title tossing joust it wouldn't surprise us to see him return there for good.

Daniels On Grand Circuit

Earl Daniels, the elevated Hydriller is on a tour with his lovely lady that will take them to Casper, Denver, Rochester, Pa., New York, New Orleans, Houston, Midland, and back home about June 1. A note from the Brown Palace Hotel in Denver would indicate that he is a trifle exasperated at the necessity of missing the PPP barbecue on May 8 but will make up for this near catastrophe when the next one comes along. Perhaps we have mentioned it before, but at his San Marino home Earl performs a mighty sharp barbecuing act himself. We have tasted some of his productions and can testify to the fact that they are mighty delicious morsels. Mrs. Daniels, be it known, is a horticulturalist of the highest order and knows intimately the delicate ways of gardenias, camellias, petunias, and other flowering plants. She tells us that there is a sort of human quality in plants that it is not too commonly recognized. We wouldn't want this to get around but she swears that once to her utter surprise she found a bachelor's button in a black-eyed Susan's bed. Imagine that!

The Lufkin Line

By VIC FAWCETT

"DOWN UNDER"

Famed for its Kangaroos, Emus and Platypuses, the Bushman and his Boomerang, the Kookaburra and the Dingo, the folks living "down under" may be on their way to a new kind of fame—and fortune via their oil discovery in Western Australia.

But first, let's take a look at the Kookaburra. Our recent visitor, Phil Kirkwood from Melbourne, told us that the Kookaburra is sometimes called "the laughing jackass"—and at any given moment, this bird can go into convulsive peals of loud laughter. (TV comedians please note.)

This column is really not intended to be a study in Australian nature, but Mr. Kirkwood told us of the most amazing of all animals, the Platypus, which has a soft bili like that of a duck and fur like a beaver's. It is a mammal but lays eggs like a bird.

Ned Brown of Brown Drilling Company undoubtedly can elaborate on this and other wonders of the continent "down under." Ned drilled the discovery well for the Standard Oil of California-Texaco partnership, which is located about one and one-half miles from the Coast of Western Australia near the town of Learmonth.

For those who may be vacation-minded Pan Am flies it regularly in thirty-six hours, according to our visitor.

Vic Fawcett

(Lufkin produces the finest . . . Pumping Units . . . Gear Reducers . . . 2 Cycle Gas Engines.)

Brief Bits From All Over

And now, by the way of last minute roundup, Cy Rubel is just back from a short business jaunt down to South America. Cy probably has more air miles to his credit than most transcontinental pilots. Earl and Mrs. Tavan, the Ken Export Company people, have also been doing the countries south of the border—we note a recent report that they had checked into Lima from Bogota. They will maybe be back before this shows up in print. George Miller of Oil Base in another Angeleno who has been foraging about the Latin Americas recently — the main purpose being to open a branch in Lima. It was sad to learn of the passing of Walt Lundquist of Pacific Perforating, following an extended illness. We have known and admired Walt for many years and he always looked so full of life and behaved so cheerfully, it is hard to realize that he is gone. We extend our sincerest sympathy to Mrs. Lundquist and the family.

Personalities IN THE NEWS

R. T. Jones and B. P. Ragsdale Promoted by Chiksan Co.

Robert T. Jones has been appointed Western Regional Sales Manager and Bev P. Ragsdale has been promoted to Senior Field Engineer in Chiksan Company, manufacturers of ball-bearing swivel joints, it has been announced by G. R. Winder, Vice-President and General Sales Manager.

R. T. Jones

Mr. Jones was formerly Sales Engineer in the Western Region. He joined Chiksan in 1945 in the Engineering Department. Entering the Sales Department, he was transferred to Chiksan's New York office and returned to the Brea Plant as Sales Engineer in 1951.

In his new capacity, Mr. Jones will supervise the activities of Chiksan's sales force in the Western portion of the United States and work closely with the Company's representatives in Oregon, Washington, Utah and Arizona. In addition, he will continue to contact major airframe manufacturers in the Western Region. He will report direct to Mr. Winder.

Bev Ragsdale has been with Chiksan for nine years and has worked in Production, Engineering and Sales in the Brea Plant and in the Western and Mid-west areas. He has recently been located in Milwaukee, Wisconsin as Senior Field Engineer. Mr. Ragsdale will handle special assignments in the Eastern Region and work closely with Chiksan representatives and their salesmen. He will report to L. J. Smith, Eastern Regional Sales Manager.

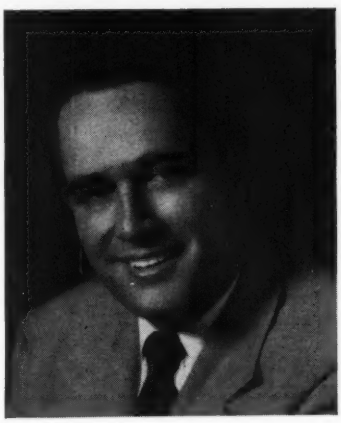
These changes are part of a long range sales organization plan designed to coordinate the activities of the sales force in line with the steady growth of Chiksan sales and diversification of the Company's market. The establishment of both Eastern and Western Regional Sales Managers who report to G. R. Winder, Vice President and General Sales Manager, will result in broader sales coverage and increased service to customers.

Signal Hill Mayor Nellie J. Combellack, housewife named a year ago to bring about certain improvements in this famed oil community, has resigned but will continue as a member of the City Council. Mrs. Combellack, who some months ago was reelected to the council, indicated that it is time for someone else to take over leadership.

Robert Smoot, 39, operator of a California aerial oil pipeline patrol service, was killed when his plane crashed seven miles east of Shandon. Smoot, a World War II pilot, was recalled to duty as a major in 1951-1952, serving on the border patrol along the "Iron Curtain" in Germany and Austria.

Shuman Made Executive Vice-President of Fluid Packed Pump Company

J. B. Reilly, President of Fluid Packed Pump Company announces the promotion of Sidney Shuman to the position of Executive Vice-President. Mr. Shuman, who has spent his entire life in the oil business, joined Fluid Packed Pump Company in 1936. Starting as a service man, he became a salesman and worked in the Gulf Coast, Mid-Continent Eastern and Northwestern fields.



Sidney Shuman

After serving the Company for a number of years as Mid-Continent Manager, he moved to California in 1945 to head an expanding sales program. Since Shuman became General Sales Manager the Company's business has increased rapidly. Fluid Packed Pump Company now maintains Oilmaster Pump stocks and service facilities in over one hundred domestic field stores with additional outlets throughout the oil producing world.

George Randall has resigned as manager of public relations for Richfield Oil Corporation at Los Angeles.

Baash-Ross Appoints Robert L. Flynne Secretary-Treasurer

Mr. Frank L. Tooley, President of Baash-Ross Tool Co., announces the appointment of Robert L. Flynne as Secretary-Treasurer and Controller of the Baash-Ross organization.

Flynne originally joined Baash-Ross as chief accountant headquartered in the Los Angeles office of the company. Several years later he was elevated to Assistant Controller, then served as Assistant Secretary-Treasurer before his latest appointment.

Robert Flynne

Graduate in Business Administration

Flynne, a native of Washington, is a graduate of the University of Southern California, majoring in Business Administration and Accounting. After serving for several years as Chief Accountant for a tire machinery company, Flynne became a naval officer in charge of Supply and Disbursing operations during World War II. While in the Navy he was appointed to advanced courses at the U. S. Naval Supply School at Harvard University, then served in the Aleutian and Marianna areas of the Pacific.

After his return to civilian life, Flynne obtained his CPA certificate and served as Staff Assistant for the Department of the Air Force before coming to Baash-Ross organization as Chief Accountant.

Grant Again Heads Oil Producers Agency

Richard A. Grant, vice president, general counsel, and a director of Fullerton Oil Company, was re-elected president of Oil Producers Agency of California at the annual meeting of the Agency's Board of Directors. This will be Mr. Grant's second term.

Mr. Grant has been a director of Oil Producers Agency for the past several years, and is a member of the American Petroleum Institute, the Independent Petroleum Association of America, the Texas Mid-Continent Oil and Gas Association, the American Bar Association, and the State Bar of California. He is a native of Los Angeles and was graduated from Stanford University and its Law School.

R. R. Von Hagen, president of the Lloyd Corporation, was elected a vice president and Vice Presidents H. D. Campbell, president of Franco Western Oil Company, and W. H. Geis, Consultant, were re-elected.

S. E. Cavanaugh, vice president of Pacific Western Oil Corporation was elected secretary-treasurer and Verne Harrell, vice president of Bankline Oil Company was re-elected assistant secretary and treasurer.

Stark Fox, executive vice president was also re-elected.

Directors for the three-year term ending in April, 1957, were: S. E. Cavanaugh, Pacific Western Oil Corp.; Jack M. Feldman, Golden Bear Oil Co.; Robt. H. Garrison, Hellman Estate; James H. Lewis, Oil Operator; M. A. Machris, Oil Operator; N. A. Rousselot, Seaboard Oil Co. of Delaware; L. W. Saunders, Intex Oil Company; R. R. Von Hagen, Lloyd Corporation; Leland K. Whittier, Belridge Oil Company; C. T. Wilson, The Petroleum Company; H. E. Woodworth, Safe Oil Company; R. W. Young, Roy W. Young, Inc.

P. J. Hallicy, Holly Development Company secretary and director, has been elected president and treasurer. Hallicy, with Holly since 1922, succeeds, the late C. A. Johnson. O. M. Waltz was named secretary of the company.

Earle W. Gard, widely known in the petroleum and chemical industries, has left for the Mediterranean, the Middle East, and Turkey, to continue a study of economic conditions and business opportunities in these areas. Gard maintains offices in Los Angeles, California, Ankara, Turkey. He negotiated the contract for Turkey's first petroleum refinery, now under construction, and has a son currently working on the project. He has spent more than 20 years in plant management and operation and for the past 15 years has devoted himself entirely to the engineering design and construction of specialized petroleum and chemical plants. En route to Turkey he will meet Mrs. Gard at Palma de Mallorca where she has been staying with friends for the past six weeks.

A total of five personnel changes in their California operations have been announced by the Producing and Pipe Line departments of Standard Oil Company of California.

Producing Department: R. W. Norton has been appointed field superintendent, Newhall - Ventura, Santa Maria Areas, Southern District, with headquarters at Ventura. His successor as field superintendent, Bay Area, will be G. C. Beckman, who will maintain headquarters at Rio Vista. A third new appointee, Kistler Wagy, was named assistant to management, San Francisco office.

Pipe Line Department: E. J. Hyde has been appointed superintendent, Central District, with headquarters at Kern River. He succeeds the late E. F. Hudson. N. B. Sinclair takes over Hyde's previous assignment as superintendent, Operations Control, San Francisco.

NEW

Axelson 6′ stroke hydraulic pumping unit

The Axelson Model H-100 answers the need for a pumping unit that has low initial cost coupled with trouble-free operation. An almost constant oil flow is possible because the unit combines a fast downstroke with a slow upstroke, thus increasing the volumetric efficiency of the sub-surface pump. Axelson's hydraulic reversal valve (patent applied for) assures a gentle reversal action which is easy on sucker rods.

CHECK THESE FEATURES:

TRIPOD BASE allows spacing of the sub-surface pump by insertion of sub-couplings between the well and unit polished rod. One leg of the base is used for porting high pressure fluid, while a second leg carries discharge fluid from cylinder base back to the fluid reservoir. A very important feature of this mounting assures no contamination of the hydraulic fluid. A flange at the bottom of the tripod base forms the upper mating surface of a special Axelson casing head adapter. Adapters are available to fit any standard well head casing flange.

CYLINDER BASE may be called the "hub" of the unit. The unit tripod attaches to the bottom of the base, the cylinder into the top portion and the reverse valve assembly attaches to one side. Both power and exhaust fluids are ported through the cylinder base. An important feature is the ability to provide adequate pressure at lower reversal, which assures operation of the pilot valve. This is an asset particularly important on viscous wells.

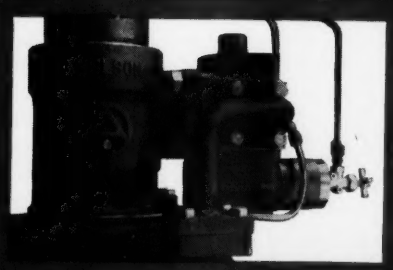
REVERSE VALVE AND PILOT VALVE are both hydraulically operated and the combination is simplicity itself in design. Only three pressure lines feed into the pilot valve. One is internally constructed to one end and two to the other end. Each of the pressure sources operates on different areas.

RELIEF VALVE is placed in the discharge line of the positive displacement pump. It supplies positive protection against excessive pressure build-up caused by surface or sub-surface equipment.

CYLINDER DRAIN LINE returns all leakage back to main reservoir. A check valve is strategically used in this unit to allow a vacuum above the working piston to work for the operator.

SPECIFICATIONS

Polished Rod Load (Max)	13,000 lbs.
Stroke Length (Nominal)	6 Feet
Strokes Per Minute (Max)	4.6
Upstroke Polished Rod Speed (Max)	56 FPM
Pump	40 GPM
System Fluid (Approx.)	85 Gals.
Cylinder Diameter	5 Inches
Operating Pressure (Max)	700 PSI
Input Horsepower (Max)	20 HP



AXELSON MANUFACTURING COMPANY, DIVISION
PRESSED STEEL CAR COMPANY, INC.

John A. Gross Elected Director, Hoyt Jones Elected V.-Pres.

At a meeting held March 26, 1954, Mr. John A. Gross was elected to the board of directors and secretary of Perry Kilsby Inc.

Mr. Gross, a graduate of Geneva College at Beaver Falls, Pennsylvania, has been associated with the company since 1949. Prior to that he served with the U. S. Navy Air Corps as a flight instructor for four years and eight years with the Tube Division of The Babcock & Wilcox Company, Beaver Falls, Pennsylvania.

At the same meeting Mr. Hoyt Jones was elevated to the position of vice president and director and will assist Perry Kilsby on the management of the company.

Aaron Wachter, Shell Development Company, at Emeryville, has been installed as president of the National Association of Corrosion Engineers. The non-profit society is a technological organization of corrosion specialists from all branches of industry.

Francis P. Lucus and W. L. Lykke have been chosen vice presidents of System Tank Lines, Inc., bulk petroleum hauling company, according to an announcement by B. M. Stewart, president.

H. S. M. Burns of New York, president of the Shell Oil Company was a recent Los Angeles visitor. During his Southern California stay, Burns conferred with Sam F. Bowlby, vice president and senior West Coast Shell official, and other company executives.

H. F. Sinclair, Sinclair Oil Company founder and a member of the board since the concern's formation in 1916, will retire as a director May 19. He retired as president of the company in 1949.

Debonair Paul Harvey, Shell Oil Company manager of public relations at Los Angeles, was a member of the all-bachelor panel selecting the best dressed lady at the traditional Easter Brunch at the Beverly-Wilshire Hotel. Miss Ann Clark, who enjoys a wide acquaintance with the oil fraternity, was in charge of the affair which is supreme in social events of the year. Miss Clark at one time was prominently identified with the Oil Industry Information Committee. She has been in charge of public relations and sales at the Beverly-Wilshire for the past three years.

Paul Trousdale, leading California oil producer and builder, weds Miss Jeanne Cameron next September 8. They plan a honeymoon trip to either South America or the Orient. In January they will tour the world.

Members of the Los Angeles Desk and Derrick Club entertained the Los Angeles Chapter of Nomads with a humorous skit at the Nomads monthly meeting at the Jonathan Club, April 14th. Here are the girls, in costume for their skit (left to right) Eleanor Murphy of Union Oil Company; Ruth Stine of Signal Oil and Gas; Lucille Lyle of Bankline Oil; Billie McKee of General Petroleum; Marjorie Marsh of Bankline Oil; Mildred Taylor of Signal Oil and Gas; Virginia Henson of American Bitumuls and Asphalt; Ethel Beyer, of Pathfinder Petroleum; Dorcas Launer of Security Engineering; Kate Binney of Oceanic; Ardys Cook of Beloil Corporation; Trella Gorman of Union Oil; Lois Watson of Bell Petroleum; Blanche Kelley of Union Oil.

Neptune to New Post

Millard K. Neptune, president of the Platte Pipe Line Co., has resigned effective July 1 to become president of Egyptian American Oil. Ralph Moore will become president of Platte.

Millard Neptune

Egyptian American Oil is a subsidiary of Continental Oil. It has concessions amounting to 75,000 square miles in Egypt. Neptune will take up residence in Egypt late this summer.

Bill C. Bozley Joins Perry Kilsby

Mr. Bill C. Bozley after several months in a personal enterprise has returned to the tube industry as a member of the internal sales organization of Perry Kilsby, Inc.

Mr. Bozley brings to the company approximately 15 years of selling experience in the industry which will be available to the customers of the company whenever they have application problems involving the use of tubular products.

API Elects Gernert

H. B. Gernert of Casper, Wyo., is the new chairman of the American Petroleum Institute Division of Production for the Rocky Mountain District. Gernert was elected to succeed J. Howard Barnett at the recent annual meeting in Casper. Gernert, who is general manager of the Trigood Oil Co., is immediate past president of the Rocky Mountain Oil and Gas Association.

A New Catalytic Refining Process to Purify Petroleum Distillates

Universal Oil Products Company is pleased to announce that the UNIFINING process is now available to the petroleum refining industry, and a refiner may secure the benefits of the combined techniques and patent rights of both Universal Oil Products Company and Union Oil Company of California through a single licensing arrangement.

The process uses a cobalt-molybdenum type catalyst to react hydrogen with petroleum distillates, saturating the olefinic hydrocarbons and removing sulfur, nitrogen, oxygen, and other impurities to the degree desired by the refiner.

Excess hydrogen from a UOP Platformer provides an excellent and economical source of hydrogen for the Unifining unit.

n i n g

Unifining is particularly advantageous for pretreating certain types of feed stocks prior to processing in a UOP Platformer. By using Unifining in combination with a Platforming unit, the refiner will find that engineering advantages accrue which will be reflected in lower costs to him.

UNIVERSAL OIL PRODUCTS COMPANY

General Offices: 30 ALGONQUIN ROAD, DES PLAINES, ILL., U.S.A.

UOP®

Laboratories: RIVERSIDE, ILLINOIS

Universal Service Protects Your Investment

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Montana

Shell Oil Co. was drilling one extension and preparing to drill another after completing its third producer in the Cabin Creek Unit, Fallon County. Latest well to be brought in was the No. 34-33 NP Unit, nw sw se 33-10n-58e, where production at an initial rate of 226 barrels of oil per day was obtained from the Ordovician at 8922-9124 feet. A northwest offset was completed in the Silurian.

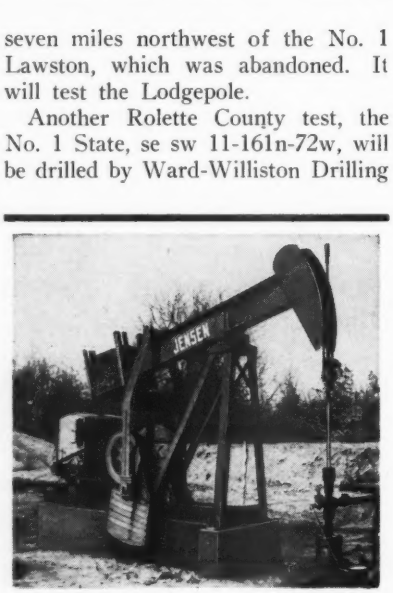
Cities Service Oil Co. was drilling ahead for a test of the Prior at its No. 1 Kelly in Carbon County after recovering 40 feet of 61.8 gravity distillate from the Greybull sandstone, which was topped at 5211 feet. The well is located at Golden Dome, in c sw sw 12-7s-22e. The drill stem test, which was for half an hour, also recovered 60 feet of distillate cut mud. A mile to the southwest, Kirk Oil Co. previously found 54 gravity oil in the Greybull at the No. 1 Stow, nw nw se 14-7s-22e.

Two producers and one dry hole marked recent activity in Richland County. In the North Sidney area, Sun Oil Co. and Earmont Petroleum swabbed 63 barrels of oil in a 13-hour test of the No. 1 Beagle Land and Livestock, ne sw sw 17-23n-59e, at the interval 9095-9138, after acidizing. Sun Oil and Phillips Petroleum swabbed 24 barrels of oil in 12 hours at the No. 2 Dynneson, c sw sw 29-24n-58e, at 9401-70 feet. Tests of the producing intervals, in the Mission Canyon, were continuing. Earmont Petroleum and associates plugged and abandoned their tight hole, the No. 1 NPRR, c sw nw 21-23n-54e, after drilling to 11,774 feet.

North Dakota

S. D. Johnson will drill the No. 1 Bryant Estate, sw nw 31-164n-70w, in Rolette County, on a farmout from Union Oil Co. of California. This is the second test in a series and is seven miles northwest of the No. 1 Lawston, which was abandoned. It will test the Lodgepole.

Another Rolette County test, the No. 1 State, se sw 11-161n-72w, will be drilled by Ward-Williston Drilling and will go to the Devonian, expected at 3400 feet. It is seven miles east of the No. 1 Sedelius, which was abandoned by Lion Oil Co. two years ago after going to 5500 feet.



A JENSEN in the field is like MONEY in the BANK

A JENSEN PUMPING UNIT costs less to install . . . less to operate . . . less to maintain. At the same time, you get greater production with more profit—and that's just like money in the bank!

The JENSEN folks have been making JENSEN PUMPING UNITS for more than 34 years . . . this experience is profitable to you! Get the proof—in the field—get a JENSEN.

STOCKED BY
ROBERT S. MOORE SUPPLY CO.
2852 Cherry Avenue
Long Beach 6, Calif. Phone LB 4-3058

LOVELADY SUPPLY CO.
3301 Cherry Avenue
Long Beach 7, Calif. Phone LB 40-5429

PETROLEUM SUPPLY CO., INC.
Fresno Highway
Bakersfield, Calif. Phone 2-2413

JENSEN BROTHERS MFG. CO., Inc.
COFFEYVILLE, KANSAS, U.S.A.
EXPORT OFFICE: 50 Church St., New York City

Nevada

Shell Oil Co. has made tentative locations for two new wells in the area of its apparent discovery in Nye County. The No. 1 Unit, in which oil was recovered, was last reported drilling around 8250 feet. The new tests scheduled will be south of this well.

In Elko County, Gulf Oil will drill the No. 1 Itceina, se nw 3-37n-59e. It will be a 6500 foot test of the Humbolt. The same operator is drilling two other wells in the county.

South Dakota

Shell Oil Co. was continuing to test at the No. 1 32-16 in the Buffalo area of Harding County after recovering oil and gas cut mud and water. Recovery was from the Red River formation, topped at 8513 feet. This test is an offset to the operator's discovery well in the area.

Colorado

The Colorado Public Utilities Commission will make no decision for several weeks on the application of Colorado-Western Pipeline Co. to build a line from southwestern Colorado to Denver at a cost of $21,000,000. The commission recently completed a hearing on the petition.

Colorado-Western's application was supported by El Paso Natural Gas Co., which has promised to supply gas to the applicant in case its own reserves fail to come up to expectations. Colorado Interstate Gas Co. and the Public Service Co. of Colorado have opposed the application. Pacific Northwest Pipeline Corp. also has voiced opposition. This company has plans of its own to build a line from the San Juan Basin to the Pa-

cific Northwest. Colorado Interstate is a supplier of gas to cities in eastern Colorado and proposes to obtain additional gas from the Pacific Northwest line by making a connection at Rock Springs, Wyo.

More than 10,000,000 cubic feet of gas per day was indicated at the No. 1 Ross, c nw nw 23e-2n-59w, in Morgan County, in a test at the interval 5906-28 feet. Production is from the D sand. Operators are Ray Campbell and Colorado-Wyoming Drilling, and the well is six and a half miles west of the Adena field.

In an effort to determine western producing limits of the Adena field, Ryan Oil drilled the No. 2 Johnson, se ne nw 35-2n-58w, through the J sand but abandoned the effort after failing to find production. In the South Adena area, the No. 3 State, ne se sw 35-1n-58w, with Eddie Fisher the operator, found oil on a drill stem test.

H. C. Arnold recovered 15 feet of oil on a test of the J sand at the No. 1 Duncan, sw se sw 27-8n-54w, a northwest extension of Pawnee Creek in Logan County. The recovery was at 5161-69 feet.

A program to drill six wells in the Gray Creek area of Las Animas County has been announced by Bruce Sullivan and ay Taylor. Objective is the granite, expected at 7000 feet.

New Mexico

A shallow gas producer in San Juan County, the No. 1 Pipkin, s½ ne ne 31-30n-14w, has been completed by Lucille H. Pipkin. The well was drilled to total depth of 812 feet and plugged back to 796 feet, with a flow of 582,000 cubic feet of gas per day obtained from the Pictured Cliffs formation.

Wyoming

In a test of the Kirby Draw Unit north of the Sand Draw field, Sinclair Oil and Gas has found oil shows at the No. 1 Unit, sw sw se 27-33n-95w, in Fremont County. Shows were in the Phosphoria, topped at 7995 feet, and operator was continuing to test.

Sohio Petroleum Co. has completed the No. 1 Standard Wambeke, sw nw 31-57n-97w, in Big Horn County for production from the Tensleep sandstone. The well was drilled to 5939 feet total depth and plugged back to 5272 feet. A pump gauge established the initial potential at 61 barrels of oil per day.

In Big Horn County, Socony-Vacuum Oil Co. recovered an estimated 200 barrels of oil per day from the No. F-41-3 Govt. Rooth, c ne ne 3-49n-92w. Production is from the Phosphoria, topped at 6390 feet.

Pacific Western has recoverd 3000 feet of oil from the Tensleep at the No. 1 Prescott-State, sw sw sw 36-44n-92w, in Washakie County. This is an extension of Murphy Dome and is a half mile north of Tensleep production in the field. The test was made at 4768-4808 feet.

Ohio Oil Co. recovered 141 barrels of oil per day, pump gauge, from the No. 2 Smith, nw sw nw 9-46n-99w, an extension of Walker Dome in Hot Springs County. Production is from the Embar, topped at 6519 feet.

Two western extensions of the Clareton trend of northeastern Wyoming have been among recent developments. Trans Tex Drilling Co. recovered production by heads of 50 barrels of oil per day from the No. 1 Continental Union State, c ne nw

when you use GEOLOGRAPH

Everybody stays "in tune" when they have the detailed record made available by Geolograph! All three tours work together as a unit, giving you the most hole at *the least cost per foot.*

GEOLOGRAPH
MECHANICAL WELL LOGGING SERVICE
P.O. Box 1291 • Oklahoma City 1, Okla.

Farmington, New Mex. • Liberal, Kan. • Oklahoma City, Okla. • Bakersfield, Cal. Abilene, Houston, Odessa, Lubbock and Wichita Falls, Tex. • Shreveport, and Baton Rouge, La. • Casper, Wyo. • Glendive, Mont. • Sterling, Colo. • Calgary and Edmonton, Alberta, Canada • Regina, Saskatchewan, Canada

Get Built-In Fire Protection with ARMCO STEEL BUILDINGS

All-metal Armco Buildings are noncombustible. Sparks from nearby fires are no threat. And if fire starts inside, your Armco Building confines it.

Interlocking STEELOX panel construction assures quick, easy erection, and low first cost. There is little or no maintenance—nothing to crack, warp or rot. An occasional painting keeps your Armco Steel Building neat and trim.

Armco Buildings are available with clear span interiors ranging from 4 to 40 feet wide. Lengths are practically unlimited. Write us for details.

ARMCO DRAINAGE & METAL PRODUCTS, INC.
CALCO DIVISION
2610 Seventh St., Berkeley 10, Calif.
6155 S. Malt Ave., Los Angeles 22, Calif.

Armco Steel Buildings

Johnston Stainless Welding Rods

PROVEN QUALITY SINCE 1931

•

A. P. JOHNSTON

1845 E. 57th St. - Los Angeles 11, Calif.

20-41n-66w, Weston County. Total depth is 7570 feet. Northern Drilling and Producing Co. is reported to have obtained 15 barrels of oil per hour from the No. 1 Govt. Jarvis Sump in the Wagonhammer area, in ne sw 1-40n-67w, Niobrara County.

Nebraska

Southwest of Sidney, the Ohio Oil Co. has brought in the No. 1 Rohlfing, ne sw nw 11-12n-52w, finding production in the D sand. The well was rated on pump gauge for 117 barrels per day. Location is in Cheyenne County. In another Cheyenne County discovery, Ohio was swabbing at the No. 3 Chambers, se sw sw 4-13n-51w.

F. M. McHale is drilling one well and has announced locations for two others in Cherry County. The operation is on acreage farmed out from Quintana Petroleum. Initial well in the series is the No. 1 Monohan Ranch, se se se 11-25n-36w. The other tests will be the No. 2 and No. 3 Monahan Ranch.

In a continuation of exploration along the northeast rim of the Denver-Julesburg Basin, Shell Oil Co. is drilling a wildcat in 4-15n-44w, in Garden County. The test is eight miles south of Oshkosh.

Utah

A rush to file on federal lands in the western part of the state, apparently stimulated by developments in Nevada, has been noted recently. Later leasing activity indicated continued interest in the older productive areas of the state.

Three States Natural Gas will drill the No. 1 Unit, c nw nw 22-38n-20e, in San Juan County.

Western Canada

A fire which destroyed approximately 120,000,000 cubic feet of gas over a 17-day period at the Imperial Oil Fairydell 1-17 has been extinguished. Mud and water were forced down a second well drilled at an angle 300 feet away, reaching the gas at a depth of 4000 feet. The operator is expected to continue drilling in an effort to get an oil producer. The well is approximately 33 miles north of Edmonton.

Spooner Oils Ltd. has added substantially to its oil and gas reserves with purchase of interest in wells in the Leduc area of Alberta. The company acquired interests in 13 producing wells from Merrill Petroleums Ltd. and prior to that purchased interests in five wells from Petro-Uranium of Canada Ltd.

The Canadian Kellogg Co. will start work this summer on its contract with Imperial Oils to construct principal units of a lubricating oil plant at Edmonton. The plant will process 2000 barrels of oil per day. It will represent a $15,000,000 investment, with Canadian Kellogg having the contract for the major part of the work.

West Canadian Petroleums and Dome Exploration have made plans for a second well in the Erskine field after a successful test of the West Canadian-Dome Erskine 11-12, in which over 50 feet of oil pay was found in the D3 Devonian. The field is in Central Alberta.

In the Hespero area of Alberta, oil was discovered in the D2 Devonian at the Amurex-Richfield-H. B. Medin 1-2. The well was drilled to nearly 9000 feet and plugged back to the D2 Devonian. Amurex Oil Development and Richfield Oil are the operators, and the well is on acreage farmed out from Hudson's Bay Oil and Gas.

Canadian Gulf acquired five permit blocks, and Shell Oil Co. a sixth block at a recent sale which brought the Saskatchewan government approximately $158,000 in bids and rental fees. Canadian Gulf acquired rights in 485,440 acres, and Shell in 97,320 acres.

SMITH-EMERY CO.
Chemists—Engineers
Established 1910
Metals—Oils—Waters
Analyzed and Tested
Shipments Certified
Tanks Strapped
781 E. Washington Blvd.
Los Angeles 21, Calif.
Member
American Council of Commercial Laboratories

OIL PROPERTY WANTED

Wish to contact party with oil property or prospect that merits development. Have 3000 ft. rotary equipment and know how. Barry Well Drlg., Fallon, Nevada. 4/30d

Universal Constructs New Research Laboratory

David W. Harris, president of Universal Oil Products Company, announced that field construction work on the company's new research laboratory building has started and it is expected that the new research center will be ready for occupancy by the middle of next year.

The new structure, three stories high and 312 feet in length, is being built immediately east of Universal's new administrative and engineering building which was occupied in October, 1952. When this latest building is completed Universal will have one of the most modern research laboratories in the entire country.

In announcing this project Mr. Harris stated that Sherman Olson, Inc., Chicago, had been awarded the construction contract on the basis of competitive bidding, and that Olsen and Urbain, the Chicago architectural firm which designed the administrative and engineering building, drew the plans for the new structure.

The research laboratory will be constructed of buff brick to match the existing Des Plaines building. It has been designed for maximum convenience, efficiency and utilization of space, and Mr. Harris emphasized that the very latest laboratory equipment will be installed to provide Universal's scientists and technicians with the most modern devices for research in petroleum refining.

To be certain of the best type of laboratory construction, Mr. Harris pointed out that both officers of the company and a number of its research people visited recently constructed research laboratories serving both the petroleum and chemical industries. The information secured through these visits resulted in the construction of several one room laboratories each incorporating different construction techniques and materials. These were constructed at the company's Riverside, Illinois research center and enabled the company to carefully study and evaluate the type of construction best suited to its individual requirements. Many of the features designed into the new building resulted from the knowledge gained under actual working conditions in the experimental rooms which are now being utilized as regular laboratory facilities by the company.

Some of the more important features of the new building include, segregating laboratory functions that operate on a continuous basis; placement of research laboratories on the north side of the building to insure the best possible light; locating offices on each floor so that they will be most convenient to each laboratory, and complete air conditioning for correct temperature control and maximum comfort during all seasons of the year.

Construction of the new laboratory building Mr. Harris said is the realization of long range plans to bring the administrative, engineering, research and development functions together in one geographical location, and that while most of the groups now located at Riverside will move to the new laboratories, some of the company's operations will continue to function at that location.

for releasing stuck tubing strings...

BAASH-ROSS PRODUCTION SAFETY JOINTS

CHOICE OF
right hand rotation compression release
left hand rotation compression release
right hand rotation tension release
left hand rotation tension release

Low-cost assurance of releasing tubing from stuck packers or sanding conditions

A type for every production string... leak-proof seals ...easy to unlock... quick release... choice of releasing actions... selective release of multiple units... unique lock permits heavy rotational loads... no danger of over-tightening... no friction or tapered shoulders involved... I.D. same as tubing string... O.D. same as tubing couplings.

BAASH-ROSS TOOL COMPANY

Los Angeles... Houston... Oklahoma City... Odessa... Casper... Canton, O.... New York City

Next Month In Sports

By Braven Dyer

In the merry, merry month of May two of the world's greatest sports shows take place . . . the Kentucky Derby and the 500-mile Indianapolis auto race.

If one of our California horses didn't win the Derby, I know many of you oilmen will be unhappy. Robert S. (Bob) Lytle's Correlation was the future book favorite and my choice. Andy Crevolin's Determine did enough out here in the early spring to warrant plenty of backing. And Double Speed, another California colt, had support from many quarters.

Some of you may recall that California scored in the 1922 Kentucky Derby when Morvich, bred by A. B. Spreckels, went to the post as the favorite and wound up a virtual wire to wire winner. We had other likely prospects . . . even as late as last year, but none ever connected.

•

My pick to cop the Indianapolis grind Memorial Day is Billy Vukovich, the Fresno wildman. Bill pocketed the biggest check ever awarded an Indianapolis winner last year. It was a shade more than $89,000. You don't find checks like that lying around every day, but I think Billy will pick up another late this month. If he fails, then the winner will be Sam Hanks, the Glendale flash. How fast did Vukovich travel last year? Just an average of 128 miles per hour.

•

Track and field prediction: Parry O'Brien, former Trojan giant, will break his own shot put record by becoming the first man in the world to exceed 60 feet. He already holds the accepted mark of 59 ft. 2¼ in. O'Brien, more than any one man, is responsible for the improvement by all major shot putters, his novel technique (which I am too dumb to explain) now being used by most of the more intelligent American weightmen.

•

Wes Santee, Kansas wonder runner, won't achieve the four minute mile at the Coliseum Relays May 21. Why not? Because he won't even be here, due to a previous date elsewhere. But he may become the first man in history to attain the magic figure of 4 minutes flat in the Compton Invitational, billed for early June. Gunder Haegg, the Swede, holds the record of 4:01.4, made in 1945.

•

On May 8 in the Coliseum Ernie Shelton of the Trojans will break the world's high jump record by leaping an even seven feet. This is the date of the UCLA-SC meet and the Trojans will more than double the Bruin total. UCLA never has beaten SC in track and never will — not while I'm still alive. The Trojans get too many stars.

•

Baseball prediction: Jackie Robinson won't manage the Brooklyn Dodgers. Makes too much money with his many business enterprises to which he'll devote all his time after 1954.

•

Horse racing prediction: As usual, I won't cash any winning tickets when the 1954 meeting opens at Hollywood Park on May 14. But you will some time during the run of 50 days if you remember to drop a deuce on Crystal Blue, a fleet flyer owned by the Palm Springs Kid, J. Ross Clark.

•

University of California fans will do plenty of cheering in late May when their baseball team cops the California college title. This will be "going away" present for Clint Evans, winding up 25 years as coach of Golden Bear nines.

Jim Decker will star in spring football practice for Red Sanders at UCLA. No, I'm not nuts. Yes, there is a Jim Decker at SC, too. UCLA's Jim Decker, a halfback like his cross town rival, is a transfer from Santa Clara. So next fall, when Sanders and Jess Hill collide in their Coliseum biggie, we may hear the announcer say: Jim Decker was nailed by Jim Decker. Which will send some inebriate rushing from the arena, jabbering to himself.

Babe Didrikson Zaharias will announce her retirement again—this time for good. It doesn't seem possible, but 22 years ago next July I played with Babe at Brentwood. Immediately after the Olympic Games in 1932 she came to the press box in the Coliseum and we arranged a golf match with Grantland Rice, Westbrook Pegler and Paul Gallico. That was the start of Babe's wonderful links career. She couldn't putt at all, so we overlooked her first nine score, and then she whizzed around the last nine in 43.

Flash! Joe DiMaggio will NOT return to the Yankees. Too much to do at home.

Field Development

Long Beach Leasing Nears Halfway Point

Close to 50 per cent of the 1900 parcels in a tract approximating 500 acres in Long Beach has been leased to Keans, Springmann and Stipek, Incorporated, for an undisclosed operating organization. This was reported by R. A. Keans, in charge of the leasing concerns' Long Beach activities from headquarters there. He explained that the royalty rate is 25 per cent and the annual rental $250 an acre. He phrased the terms as the best his company has ever offered in a similar operation and where slant drilling is a "must." The primary term of the lease is five years and also provides for pooling, he said. The area being leased is best described as triangular in shape containing highly improved downtown and residential districts east of Pine avenue. A couple of dozen lease men are engaged in the operations, one-third of whom live in the beach city.

Monterey County Wildcat Under Way

An interesting wildcat test well has been set in motion at Greenfield in Monterey County by Humble Oil & Refining Company. The venture is named A. J. Zabala No. 1 and is on projected Section 34-18s-6e or about four miles northwest of Monroe Swall production. It is also slightly less than one and one-half miles south of Humble's Capital Company No. C-1, which was abandoned last November at 6100 feet. Pike Drilling Company is in charge of operations.

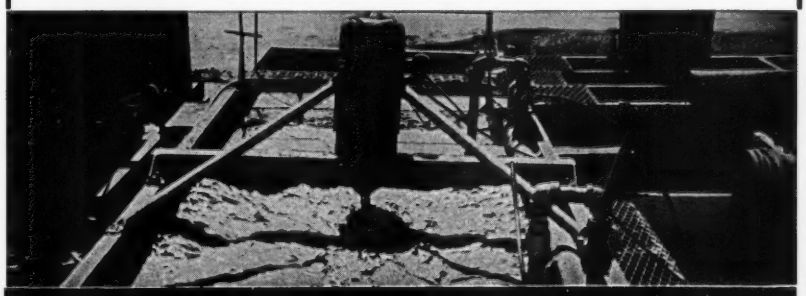
Richard S. Rheem's Capital Company No. 1-31 on Section 31-18n-1w at Princeton in Colusa County has been relegated to history at an even 3000 feet. At East Livermore in Alameda County, The Texas Company's Maud Stanley No. 1 wildcat on Section 20-2s-2e continues to grow deeper. Last reported depth was 9800 feet or so. Drilling has reached 700 feet with Mattole Oil Company's Chambers No. 1 explorer on Section 21-1s-2w at Petrolia in Humboldt County. P. M. Oil & Gas Company's P. M. No. 1 test on Section 36-3n-9w in the Point Reyes district of Marin County is still idle at a plugged depth of 1193 feet. Total bottom is 1671 feet.

Yolo County Tests

Signal Oil & Gas Company is drilling at an intermediate stage with its Signal-Monterey-Reclamation No. 2, a wildcat test on Section 20-12n-1e in the Sycamore Slough area, Yolo County. The drill site is one-half mile south of the company's No. 1 discovery. North of Dunnigan Hills, W. W. Holmes, Operator, Mohawk-Bemmerly No. 1 wildcat on Section 10-11n-1w is working on preliminaries. General Petroleum's Glide-Court No. 1 on Section 10-7n-3e in the Saxon area is down 12,638 feet and fishing drill pipe, with top at 10,511 feet. Mechanical troubles also have halted drilling at 6935 feet in Humble's Sutter Basin Corp. No. 1 on Section 24-13n-2e, northeast of Robbins, Sutter County. Humble, by the way, is understood to have its mind made up to shortly launch a series of core holes in Sacramento Valley, as a prelude to launching a wide campaign for new gas.

OUR ENGINEERS

are experienced specialists in California oil well drilling mud problems. They have years of on-the-job-know-how, plus a complete line of proven mud products with which to help you drill your oil wells.



BROWN MUD COMPANY

MAGCOBAR DEALER

VENTURA Miller 3-8168 | LOS ANGELES WEbster 35618 | BAKERSFIELD 2-6410

Oxnard Test Begins

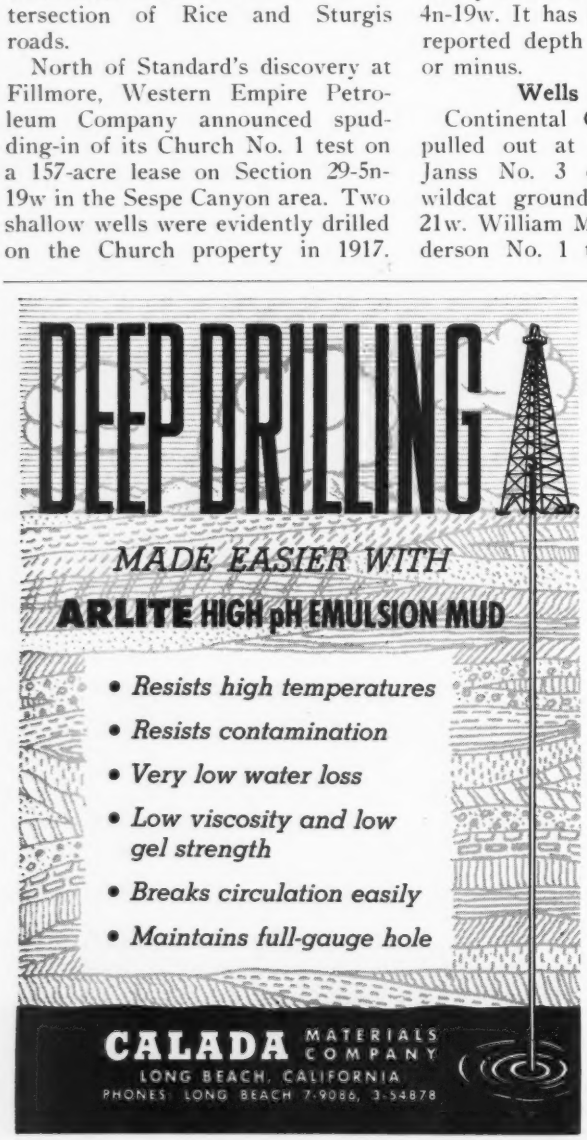
Standard Oil Company's McInnes No. 2 wildcat on Section 31-2n-21w in Ventura County's Oxnard area is making hole steadily ahead several hundred feet below topsoil. The location is about 1200 feet north and 1060 feet east of the McInnes No. 1, which scored with Sespe oil production from the interval of 6280-6374 feet last summer. Development of the new deeper zones at Oxnard also holds the attention of the Lloyd Corporation. Its Lloyd Corporation-Borchard No. 1 on the same section is cutting deeper at 4100 feet. Location is a north offset to the recent Lloyd discovery, which in turn is one-half mile northeast of the Standard find. The latter also falls near the intersection of Rice and Sturgis roads.

North of Standard's discovery at Fillmore, Western Empire Petroleum Company announced spudding-in of its Church No. 1 test on a 157-acre lease on Section 29-5n-19w in the Sespe Canyon area. Two shallow wells were evidently drilled on the Church property in 1917. Western Empire officials said these wells of yesteryear showed some 36 gravity oil before destroyed by fire. Yuba Consolidated Gold Fields also has stuff in the Fillmore play. Holdings comprise 180 acres in Section 28-4n-20w, a half-mile west of the discovery, and 120 acres in Section 31-4n-19w near The Texas Company's River Ranch well, NCT-1 No. 1 on Section 36-4n-20w, drilling at 1865 feet. Standard just now is outlining plans for followup drilling to the discovery. Other companies with land thereabouts also have on their "thinking caps" as related to Fillmore development drilling. Another important test well working in the Fillmore area is General Petroleum Corporation's Cosby State No. 1 on Section 24-4n-19w. It has persevered to a last reported depth of 11,300 feet, plus or minus.

Wells Abandoned

Continental Oil Company has pulled out at 6471 feet from its Janss No. 3 on Camarillo Hills wildcat ground on Section 22-2n-21w. William M. Thornbury's Henderson No. 1 test on Section 23-3n-21w at West Mountain also was a duster to 1170 feet. In the Conejo area, Richfield's Janss No. 1, Section 36-2n-20w, is redrilling at 3870 feet after digging to 8151 feet originally. In Santa Barbara County's East Cat Canyon area, Slick-Moorman Producing Company has launched Palmer Stendel No. 3 on Section 24-9n-33w. Union Oil's Union Sugar No. 52-17 wildcat on Section 17-10n-35 near Guadalupe is probably deeper at 2565 feet.

British American Oil Producing Company and Bolsa Chica Oil Corporation have set casing around 11,400 feet with their Hartman-Barnard Unit No. 3 well on Section 22-3n-23w in the Ventura Avenue field. The well is now being taken on down further for a look at D-8 zone production possibilities. Interestingly enough, location is between 200 and 300 feet from a well taken down by Tide Water Associated Oil Company that started off from the D-8 zone some months ago for better than 1000 barrels of oil a day. The combination's Hartman No. 21 on Section 21 is drilling ahead under 9200 feet. Drilling is


DEEP DRILLING
MADE EASIER WITH
ARLITE HIGH pH EMULSION MUD
• Resists high temperatures
• Resists contamination
• Very low water loss
• Low viscosity and low gel strength
• Breaks circulation easily
• Maintains full-gauge hole
CALADA MATERIALS COMPANY
LONG BEACH, CALIFORNIA
PHONES: LONG BEACH 7-9086, 3-54878

Just Say---

YES! You may send me the CALIFORNIA OIL WORLD for one year, for which I enclose $1.00.

Name.....

Address.....

City.....State.....

Position.....Company.....

Check branch engaged in Producing..... Refining..... Natural Gasoline..... Marketing..... Manufacturing.....

Subscriptions accepted only from persons actively connected with the oil industry.

CALIFORNIA OIL WORLD
2404 W. 7th St., Los Angeles 57, Calif.

in charge of Bell & Burden on both jobs.

Of all the hundreds of wooden derricks which once silhouetted the Ventura Avenue field horizon, only one remains to mourn the passing of a chapter of the production industry. The surviving derrick points to the sky over Foster No. 2 and its age is attested by records which gives its birth as 1926. It came in from 7800 feet in 1927 for oil in quantity and is credited with accounting for more than 1,000,000 barrels of oil during the intervening years. The well still produces about 50 barrels of oil a day for Victory Oil Company. A recent check of activity in the field denoted no less than 25 wells working at various operational stages. But they all are using steel derricks.

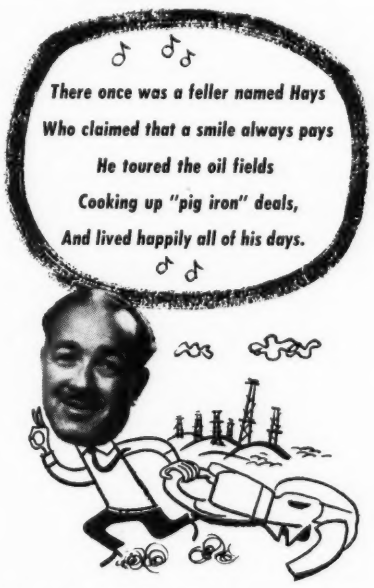
Along picturesque Morro Bay in San Luis Obispo County, Tide Water Associated's Montadoro No. 1 exploratory project is digging at 1120 feet. Rushing Drilling Company, contractor, is taking the well down on Section 3-31s-10e. Standard's McGrath No. 1112 on Section 35-2n-23w at West Montalvo will go to 13,000 feet for a complete test of petroleum hiding out in that vicinity.

The Hopper Canyon field is the scene of Palomino Oil Company's United Palomino No. 1 well, drilling at 2000 feet in Section 13-4n-19w. At Elwood field, Pacific Western Oil Corporation has staked location for Blue Goose No. 93-12 on Section 16-4n-29w or State lease No. 420. Bill Thornbury is ready to drill King No. 6 well on Section 1-3n-20w in the Bardsdale field. At Santa Paula Creek, Terry Drilling Company's Paula No. 6 well is a location on Section 22-4n-21w. Richfield has just spudded-in its E. P. Clark No. 16 on Section 14-4n-21w in the Timber Canyon field. On the Squires lease in the Orcutt field, Union is rigged up for its No. 35 well on Section 26-9n-34w. At old Eureka Canyon, Texaco's Sloan No. 1 wildcat on Section 32-4n-18w is digging in the not so deep formations.

Bandini Field Work Continued

General Exploration Company has initiated its CCMO No. 3, its fourth well in the Bandini field in East Los Angeles. The drill site is on Section 17-2s-12w, 13 feet east and 20 feet south of CCMO No. 1 and near the intersection of O'Neill avenue and Shiela street. Rouse Simmons, Bolsa Chica Oil Corporation, reported that Union Oil Company, did not exercise its option to purchase one-half of Bolsa-Chica's interest in the Bandini field discovery. Last October Union paid $100,000 for the option which called for an outlay of an additional $250,000 to complete the transaction. The option, which ran for 30 days following completion of the second well, has expired, Simmons said. Two out of three wells so far taken down in the field have been successful. The field at present is putting out 360 barrels of net oil daily, with production since the discovery totaling 51,750 barrels. Brown Drilling Company is contractor on the current job. In addition to General Exploration and Bolsa Chica, a number of other organizations share interest in the Bandini play.

A 63-acre oil drilling district established by the The Texas Company near San Fernando has been approved by civic planning authorities. The area is bounded by Maclay street, Gladstone avenue, and the extensions of Gridley street and Fenton avenue. In Violin Canyon, M J M & M Oil Company's Guyton No. 1 wildcat on Section 22-5n-17w has been plugged and abandoned at 1539 feet. Test failed of the interval of 1250-1300 feet. Fowler & Oles Oil Company's Robinett No. 1 wildcat test on Section 26-5n-16w at Dry Canyon continues to drill ahead under 2100 feet or thereabouts.


There once was a feller named Hays
Who claimed that a smile always pays
He toured the oil fields
Cooking up "pig iron" deals,
And lived happily all of his days.

And what kind of "pig iron" was he selling? Why Web Wilson HYDRA HOOKS, Tongs, Elevators, Slips and Links. ★ But the biggest smiles in the Valley were from his customers who use TIGER TOOTH Tong Dies, the kind that DO GRIP and WON'T SLIP even on hardened wear subs or tool joints. ★ Wally Hayes is one of "Big Ed" Plaugher's boys, and a mighty easy fellow to get acquainted with. Call Bakersfield 2-2376, and he'll come a smilin'.

Extension Test

Murphy Brothers Ltd. and A. D. Rushing Inc. have embarked on an extension test of the Huntington Beach field. It is being sought through the medium of Brown-Henricksen No. 1 on Section 11-6s-11w close by the intersection of California avenue and Indianapolis street. Camay Drilling Company is in charge. Behr Oil Company's P & V No. 1 wildcat in the Huntington Beach area is in the earlier stages on Section 14-6s-11w. Over at Talbert, D. D. and Dorothy Dunlap have started Lamb No. 1 on Section 6-6s-10w. Another new well under way is Pacific Drilling Company's Sherman No. 2 on Section 12-6s-11w. It is a north offset job to the company's Sherman No. 1, completed last February in the Upper Bolsa zone interval of 2480-2535 feet for a primary yield of 200 barrels of 18 gravity crude oil a day. At West Newport Beach field, Surfland Oil Company's Newland No. 9 on Section 12-6s-11w was completed at 2535 feet flowing 132 barrels of 16 gravity oil a day through a 32/64-inch orifice, cutting initially 12 per cent. In the Sunset Beach area, Burt Aston's B & F-Lomita No. 1 on Section 19-5s-11w is being made ready for deepening from present depth of 4350 feet. The project formerly flew the banner of B & F Oil Company. In the Richfield area, Union Oil Company's Richfield Unit No. 1 has been completed at a plugged depth of 3750 feet for a current yield of 25 barrels of 17.8 gravity oil a day, with an 80 per cent cut. Drilled to a total bottom of 4400 feet, the venture is on Section 28-3s-9w. In the Olive area, Texaco's Huarte No. 2 test on Section 7-4s-9w is digging beneath 1100 feet.

Wildcat Difficulties

Before The Texas Company ever started its exploratory operations at Edom Hill, five miles northeast of Palm Springs, a four-mile oiled road

had to be constructed to location with grades at times as precipitous as 17 or 18 per cent to the peak top. Twenty truckloads of drilling equipment were hauled to the drill site, one load requiring two caterpillar tractors and helpers to make the grade. This effort, known as Stone NCT-1 No. 1 on Section 35-3s-5e, at last reports was at a critical depth. In the San Timoteo Canyon area, S. V. Smith's Haskell No. 2 wildcat on Section 35-2s-2w keeps digging at 765 feet.

Of considerable interest is John Q. Tannehill's No. 16-1 wildcat project on Section 16-8n-17w in the Antelope area. The drill site is in Los Angeles County and not many miles from the Los Angeles-Kern County line. It is several miles northwest of the Oak Canyon field.

In the Yucca Valley area of San Bernardino County, the Retari Company, Inc., Retari No. 1 explorer on Section 25-2n-5e continues to drill on down under 900 feet.

The Texas Company's Yule No. 1 wildcat on Section 30-5n-16w in Los Angeles County's Charlie Canyon area failed to poke into anything at depth. Bottomed at 6010 feet, the well was plugged back to 920 feet for a final test of the shallow formations.

Universal Consolidated Oil Company is continuing development of lower zones in the Beverly field with its Twentieth Century-Fox No. 2 on Section 25-1s-15w in the Beverly field. Incidentally, members of the Los Angeles Country Club are planning to ascertain the impact of Universal Consolidated's deep zone discovery at Beverly on the club's holdings immediately north. A committee to carry out wishes of the members has been appointed, composed of Frank L. King, LeRoy M. Edwards and Mortimer A. Kline. A spokesman for the club pointed out that no commitments have been made as yet to any company for development of the property and that no decisions have been reached as to what procedure might be ultimately followed to probe for possible duplication of the deep success in the Beverly field.

Santa Fe Producer

Near where Perris avenue and Bloomfield road cross one another in the Santa Fe Springs field, General Petroleum Corporation has added its Santa Fe No. 168 at a depth of 7930 feet. The well, completed on the pump, isputting out 235 barrels of 33.4 gravity oil a day and cutting more than 30 per cent. In the Whittier area, R. F. Oakes and F. W. Combs have commenced work on their Whititer No. 1 test on Section 22-2s-11w. Contractor is Atlantic Drilling Company. Art Graser is handling the engineering.

Dagany Gap Lists New Wildcat Test

General Petroleum Corporation is all set to drill another test for production in the Dagany Gap area of Kings County, where the Caminol Company the other month completed a shallow discovery. General's new well is located about 330 feet east of its first test taken down at Dagany Gap. It is known as Balfour No. 3-33 and situated 220 feet south and 990 feet east from the center of Section 33-24s-18e. The company's previous try, Balfour No. 2-33, finally was completed at 860 feet for only a few barrels of crude oil daily. Caminol brought the new pool to light with its Dagany No. 1, approximately 900 feet northwest of location of General's current wildcat. Initial yield was somewhat less than 80 barrels of 15.6 gravity oil a day from 856 feet. Also on Section 33, Franco Western Oil Company has just completed its Norris-Orchard No. 2 at 880 feet for what at first glance appears to be a satisfactory yield. The well is pumping from an oil sand zone topped at 773 feet. It was taken down by the B. & B. Drilling Company. Four miles northwest of Pyramid Hills production, J. B. Nelson & Associates' Morris No. 2 wildcat venture on Section 30-33s-18e has been given up at an unproductive 933 feet. In the Kettleman Hills North Dome area, Palm Oil Company's Kochergen No. 1 test on Section 2-22s-18e is drilling at 7700 feet or thereabouts.

Black Canyon Test

For the third time, which may prove the test alluring new oil, Standard is sponsoring exploratory drilling at Black Canyon in San Benito County. This latest venture, drilling in the shallower formations at present, is a half-dozen miles south of Bitterwater where some wells are disposed to put out from levels not so deep. The new Standard chores are in charge of Miller & York on Section 35-18e-9e. The outcome of Oceanic Oil Company's Chambers No. 1 wildcat on Section 11-18s-9e is being awaited. Depth at last reports was around 5600 feet.

Neaves Petroleum Developments of Beverly Hills has on the calendar for immediate drilling its Neaves-Elkhorn No. 3 wildcat on Section 25-32s-22e in the Temblor Hills of San Luis Obispo County. A Cardinal Drilling Company contract rig is doing the work. In the south Carrizo Plains area, Elmer C. von Glahn & Associates are preparing to drill Washburn No. 1 on Section 36-32s-20e. Fred Sperber is company engineer, with drilling in the hands of Burke Drilling Company. McGreery-Neary Oil Company's National Development Merzoan No. 1 wildcat well on Section 22-22s-27e at Deer Creek in Tulare County is down 860 feet and reported testing.

Madera County Dusters

Madera County has registered two wildcat well failures. They are Trico Oil & Gas Company's Redman-Cook No. 1 on Section 35-11s-14e in the Moffatt Ranch area, and La Boa Exploration Company's La Boa No. 1 on Section 19-10s-18e in the Kismet area. They went to 4004 feet and 2231 feet, respectively. Speaking of the Moffatt Ranch gas area, Gene Reid Drilling Company has just started No. 26A-21 on Section 21-12s-15e, a designated 4500-foot test. Location is six miles east of Firebaugh townsite and two and one-half miles southeast of production. Tide Water Associated's Chowchilla outpost well, Southern Realty No. 1-6 on Section 6-10s-14e, is bottomed at 7963 feet and is undergoing additional work. The well, which has 5½-inch casing set at 7919 feet and 4-inch at 7962 feet blew gas at the estimated rate of 5,000,000 cubic feet a day on test of the interval of 7910-7962 feet. The third Panoche sand showed up at 7932 feet, it was indicated. Success Oil Company is giving consideration to a wildcat on Section 27 or 32-10s-18e.

Merced Test Drills

Approximately five miles northwest of Merced in Merced County, the J. K. Wadley, Operator, J. K. Wadley and K. E. Jennings No. 1 wildcat at last reports was being taken down around 3400 feet by U. S. Drilling

Company. Located in Section 22-6s-13e on a 4000-acre lease block, the project evidently is destined for production or basement at an anticipated 5000 feet. West of Chowchilla in Merced County, Shell is all set to drill its R & R No. 36x-11 wildcat on Section 11-10s-13e.

F. M. Taylor has two test wells going in the Guijarral Hills province of Fresno County. No. 34-10F on Section 10 and No. 63-16F on Section 16-20s-16e are drilling at 4730 feet and 5135 feet, respectively. Highland Oil Corporation has staked location for its Dell No. 1 wildcat test on Section 29-12s-14e near Mendota. Los Nietos Company, Operator, is about to spud Guijarral Service No. 87-22 on Section 22-2s-16e at Guijarral Hills.

Richfield has announced the opening of a water-flooding program in the Russell Ranch field in Cuyama Valley as a means of boosting recovery of oil there substantially. The South Cuyama field also may shortly invoke this secondary recovery method.

Recovering Pipe

Ohio Oil Company is persisting in its efforts to recover the drill pipe stuck in its KCL-A No. 72-4 deep test in the Paloma field. At this writing the hole has been put in order to 16,008 feet. Remaining to be recovered is another 5374 feet in the event the hole is cleaned up to bottom at 21,482 feet. In the Sharktooth district, S-K-L Associates' S-K-L No. 1 wildcat on Section 15-28s-28e cored gray Vedder sand and was abandoned at an even 2900 feet.

Ten miles east of Edison in the Caliente region, Danielson Oil Company's No. 1 wildcat project on Section 23-30s-31e is still digging beneath the 1000-foot level. The area generally has not had a great deal of attention from the wildcatter and the current test is being followed with more than ordinary interest for that reason if no other. The project is not destined to go deep. Between wells producing in the Graham and Jeppi-Camp sectors at Edison, General Petroleum has started its Baughman No. 84-8 wildcat on Section 8-30s-29e. In line for investigation are the Jewett, Pyramid and Vedder sands. On the same section, Standard's Jeppi-Camp No. 78-8 is redrilling at 4900 feet. The project the first time down went to 6443 feet and then was plugged back and whipstocked for a fresh start from around 4300 feet. On Section 17-30s-29e, Standard's Jeppi No. 4 is making hole at 4350 feet. The venture is aimed for the Nozu oil sand zone, which gave undeniable production some months ago for Dumm Brothers Petroleum Corporation's well, one mile northeast of the Standard job.

Devils Den Find

All signs pointed to a find of importance with Gilliland Oil Company and H. F. Ahmanson's Miller No. 1 wildcat on Section 3-25s-18e on the Alferitz Anticline in Kern County. The project appears to have extended the present limits of shallow Escudo production northwest of Devil's Den. Contractor is Burke Drilling Company.

Oceanic Oil Company is preparing to inaugurate drilling in its C.W.O.D. No. F-1-17 on Section 17-32s-23e, a Midway area extension test. On the La Liebre Ranch, Li-Jo-Oil Company's No. 32-1 explorer is drilling ahead below 1700 feet on Section 32-9n-17w. West of Salt Creek, Intex Oil Company has reached 1000 feet with its Flocker No. 2 on Section 13-29s-20e and is drilling deeper. Basco Drilling Company has the contract Sunray Oil Corporation is due to start work on its KCL No. 21-30 on Section 30-29s-26e, south of the Greeley field. During recent weeks, M J M & M Oil Company and Monterey Oil Company have leased ground near the Greeley field. In the Round Mountain field, Van Ray Oil Company has staked location for USL-Van Ray No. 2 well on Section 22-28s-28e.

Tejon Hills Producer

D. K. Partnership No. 2 has completed Corral No. 364-29 on Section 29-11n-18w in the Tejon Hills area for an initial output of 45 barrels of 33 gravity oil through an 18/64-inch bean from intervals perforated from 1980 to 2108 feet. Total bottom is 2400 feet, with 7-inch casing cemented at 2225 feet and tubing hung at 1982 feet. Tapped was the lower DK sands. The Santa Margarita was topped at 541 feet, Valv sand at 1180 feet, DK beds at 1500 feet, LO at 2110 feet and basement at 2290 feet. The operator is now ready to begin Corral No. T-1 on Section 28-11n-18w. At Tejon Flats, Union Oil's Reserve-Tejon No. 57-26 on Section 26-11n-19w keep digging below 10,000 feet.

Lane-Wells Purchases Well Surveys, Inc.

Aggressive plans for the expansion of Well Surveys, Inc. of Tulsa, Oklahoma, pioneers in research and development in the field of radioactivity well logging, were revealed today by Lane-Wells Company with the purchase of the remaining 50% of Well Surveys, Inc. capital stock from Socony-Vacuum Oil Company. Lane-Wells Company, Lane-Wells Surveys stock since December, 1950 and since 1940 has been licensed to use methods and equipment developed by WSI.

Rodney S. Durkee, president of Lane-Wells Company, Lane-Wells Canadian Company and Petro-Tech Service Company of Venezuela, has been elected president of Well Surveys. Dr. John H. Buck, formerly associate director of a major project for Carbide & Chemicals Co., operators of Oak Ridge National Laboratory at Oak Ridge, Tennessee for the past three years, and previously supervisor of the Physics Division of the Socony-Vacuum Research Laboratories, has been named vice-president and technical director, and will be in charge of operations in the Tulsa offices, laboratories and plants. D. W. Loots and Robert K. Schumacher have been named assistant treasurer and assistant secretary respectively and will be stationed in Tulsa. Other officers are Russell M. Otis, and Morton T. Higgs, vice presidents, D. S. Jeppson, vice-president and treasurer, and W. A. Miller, secretary and assistant treasurer, all of whom are executives with Lane-Wells Company.

"A greatly accelerated program of research and development of improved methods and equipment will be instituted immediately," Mr. Durkee stated, "and everything possible will be done to make new discoveries of importance to the oil industry and our country."

Ralph Arnold, one of the world's greatest oil and mining geologists, turned 79 years of age last April 14. Ralph, who at present is making headquarters at 3162 Calle Fresno in Santa Barbara, currently has gas projects going in California, Montana, Idaho, Florida, Utah and British Columbia.

AIME Junior Group Pacific Petroleum Chapter

By David Hayward
The Texas Co.

Recent developments in the Wilmington pilot water flood were disclosed before 93 members and guests of the AIME Junior Group at their April 8th meeting at the Turf Club. Mr. T. A. Johnson presented the operational features of the flood and Mr. David R. Johnson gave his interpretation of subsurface data. Both men are production engineers for Long Beach Oil Development Company.

The water-flood reservoir covers 65.7 acres and contains 1,672 acre-feet of unconsolidated and silty oil sand which has an average porosity of 33% and an average permeability of 506 millidarcies. Closure is obtained by north-south parallel faults to the east and west of the reservoir, and by wet sands to the north and south. The flood interval, and the only productive section in the fault block, is limited to the top 50 feet of the HX subzone of the Upper Terminal zone (Miocene age), from which 18.5° API gravity oil is produced.

Injection water is obtained from a source well 122 feet deep, completed with a combination string of 11¾" casing with 40 mesh slots, gravel packed, and equipped with a turbine pump. Through a closed system, water is treated and pumped into two injection wells completed in the water sands at the north and south ends of the fault block. Water is injected below the oil-water contact, through 7" casing gun perforated with ⅜" holes spaced 2 feet apart.

When water injection was begun on June 19, 1953, 150 barrels of oil per acre-foot had been recovered from 3 wells under primary methods of operation. By March 31, 1954, 930,000 barrels of water had been injected at an average rate of 3,310 barrels per day and an average injectivity index of 29.5 barrels per day per foot of injection interval. Although the injection of water has not yet stimulated the daily oil production rate, there has been an increase in reservoir pressure of 60 psi and a decrease in produced gas-oil ratio to the solution rate. From that standpoint, it appears that some success will be attributed to the pilot flood. On the other hand, the productivity indices of producing wells are decreasing at a rate indicative of well bore plugging, which may necessitate some remedial work. Furthermore, the large volume of water injected and evidence of possible stimulation of wells to the southeast indicates that injection water may have flanked the Pier A fault, and thereby may be escaping from the pilot flood area.

Problems of water treatment have been primarily (1) prevention of the compounding of barium ion in the formation water with sulphate iron in the injection water, (2) control of the iron content, which is higher than that of sea water and which adds up to more iron than is contained in the casing of the source well, and (3) control of the corrosion rate which at times is excessive.

Thus far, there has been little indication of water bypassing within the injection area. Although one producer has shown a substantial increase in cut, production from the others has remained relatively clean. A few shales exist in the reservoir sand, but their continuity has not yet been established.

In summary, the Wilmington pilot water flood is an experimental secondary recovery project in which water is injected peripherally below the oil-water contact of a typical California silty, heavy crude reservoir. Although oil rates have not yet been stimulated, there has been an increase in reservoir pressure and a return to solution gas-oil ratio. The next few months are expected to hold the answer to the degree of success obtainable from the Wilmington flood.

Observing a 44th Anniversary

The Midway Fishing Tool Company, a pioneer Oil Equipment Rental Service in California, observes its 44th Anniversary on May 7th.

The Midway Company started operations in Taft, California in 1910. The healthy growth and expansion of the company through the years afford ample proof of a ready and valuable service to the oil operators in this district.

New tools are constantly being added to its stock of fishing, drilling and production tools which are available on a rental basis. New services are adopted as the demand arises.

Midway also maintains and operates well-equipped machine and welding shops at both Long Beach and Bakersfield with specialists to handle all types of oil tool repairs.

Elmore Jones, one of the original founders, has been active president and general manager for the corporation since 1917.

Fred Powell has been appointed assistant general manager of Standard Oil Company of California's Manufacturing Department, with responsibility for co-ordinating chemical manufacturing activities.

Powell, who joined the company in 1925, previously headed the subsidiary, California Research & Development Company, which has been dissolved following completion of its assignments for the Atomic Energy Commission.

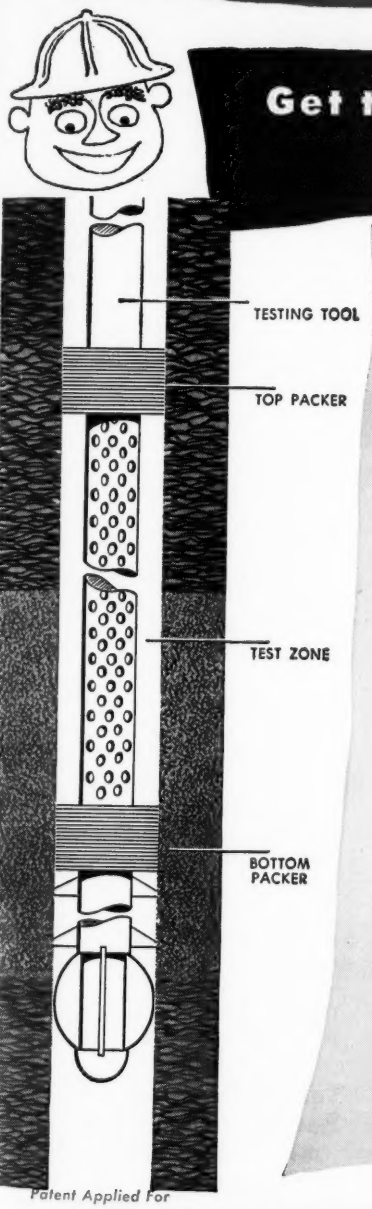
A chemical engineering graduate of the University of Washington, Powell has held a succession of increasingly important posts in the company's refineries at Richmond, El Segundo and Bakersfield, and at the refineries of subsidiaries located in El Paso and Perth Amboy, New Jersey.

In 1948, he was appointed general manager of the El Segundo plant, which post he held until his appointment as president of CR&D in 1950.

Union Sales Still Increase

Union Oil Company sales of crude oil and refined products in the first two months of this year increased to 12,490,690 barrels from 10,646,222 barrels in the like period of 1953. The supply of crude oil dipped slightly to 7,357,537 barrels from 7,442,489 barrels, but refinery runs rose to 8,465,430 barrels from 8,213,880 barrels.

another Johnston first!
SELECTIVE ZONE TESTER



Get tests at any level without tail pipe!

- Test more than one zone with a single trip in the hole!
- Eliminate cost and hazard of setting on cement plug!
- Evaluate zones passed up while drilling!
- Pin-point gas/oil and water/oil contact!
- Save rig-time and money!

Watch for more information on Johnston's NEW . . . FIELD PROVEN SELECTIVE ZONE TESTER

Write For Brochure

Patent Applied For

JOHNSTON TESTERS

first in drill stem testing

HOUSTON, TEXAS

LOS ANGELES, CALIF. • CALGARY, CAN.

FORMATION AND CASING TESTING — JOHNSTON

ZT-541

With Drilling Contractors

More or less forgotten is the fact that one of the earliest applications of slant drilling took place at Huntington Beach, where wells located along the shore angle out beneath the ocean floor. The economy of producing oil at Huntington Beach is enhanced by tracks laid along rows of wells which carry a rolling derrick possible of being moved over any well for replacing pipe, cleaning out or otherwise servicing producers.

Union Oil Company, the first large California operator to turn over all drilling activities to contractors, by its development in the Sansinena field has shown what can be accomplished by slant work. Without marring the landscape in the least, the company now boasts more than 70 producing wells amidst the citrus groves and avocado orchards in the rolling hills of Sansinena. Small islands tucked away in little canyons provide remote locations for slant drilling wells in all directions and doing away with a forest of derricks.

Hoover Drilling Company has been assigned contract to drill for Chanslor-Western Oil & Development Company wells No. 20-32, 21-32, 22-32, 23-32 and 24-32 in the Tejon Ranch area, Kern County.

Drilling and Exploration Company as contractor has completed Humble Oil's N. L. & F. No. 13 well on Section 24-4n-16w in the Castaic Junction field of Los Angeles County. The well came in flowing from a plugged depth of 10,620 feet at the rate of 212 barrels of 20.2 gravity oil a day by way of a 11/64-inch bean. Total bottom is 12,000 feet.

Hugh and Earl Rapp of the Mid-Continent region are in charge of taking down the exploratory well on the Dewey McCauley Ranch, some 20 miles southeast of Winslow in Arizona. The venture evidently is framed by some 100,000 acres of land owned by McCauley, Fred Aja, Babbitt Brothers and others. Silas C. Brown of Durango, Colorado, consulting geologist on the project, at one time was with General Petroleum Corporation, according to Winslow advices. The well is 18 miles northwest of Holbrook, where some years ago Union Oil tried its luck without scoring commercially.

Thomas P. Pike Drilling Company Executive Vice President Stanwood I. Williams reported the firm has 11 rigs currently occupied with drilling contracts in California.

The AAODC's next interim meeting of the board of directors will be held June 11 at the Broadmoor Hotel, Colorado Springs, Colorado. Space at the hotel will be available from Wednesday, June 9, to Sunday, June 13. Therefore, directors and wives expecting to spend a few days in Colorado Springs will have extra time both before and after the meeting, according to an association bulletin.

I. J. Fisher has joined the staff of the American Association of Oilwell Drilling Contractors at Dallas headquarters. He will coordinate safety activities and participate in development of area safety clinics.

The Texas Company's success in developing a little oil with its O'Neill Estate wildcat down San Clemente way awakened memories of exploratory wells drilled in the area more than 25 years ago. A press account of March, 1927, had this to say anent one particular test:

"Roaring like a fast train, the Carr well south of San Juan Capistrano and 10 miles north of the San Diego line, is gushing a column of gas and salt water with indications of oil so strong that the owners hope to make a paying producer of the well if the water can be shut off or pumped out with the gas, which is reported escaping at the rate of more than 3,000,000 to 4,000,000 cubic feet daily. If the water cannot be headed off or pumped out by Sunday, the owners plan to start a new well 300 feet from the gasser, O. K. Carr, one of the proprietors, declared yesterday. Carr is supremely confident that he has penetrated an oil formation and expressed belief that the same strata in to which he has drilled extends down into San Diego County." Just about this same time the Brigham property east of the beach town of Del Mar was the scene of wildcat operations.

K. L. Kellogg & Sons has completed an excellent well for Porter Sesnon et al in the Aliso Canyon field. Sesnon Fee No. 4 on Section 33-3n-16w was last reported producing 1055 barrels of 20 gravity oil a day through a 32/64-inch orifice. Engineering was handled by Easton & Sacre.

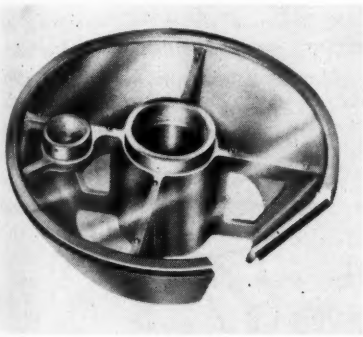
Robinson Drilling Company of Salt Lake City is the contractor on Last Frontier Oil Company's Damele No. 1 wildcat drilling in Pine Valley, Eureka County, Nev.

Texaco Budgets Record Expenditures

The Texas Company has budgeted record capital expenditures of more than $275,000,000 for 1954, Augustus C. Long, president, announced in New York. The company's building and expansion program through the current year will include six catalytic reforming units for the production of high octane automotive gasoline.

New Loading Vapor Recovery Unit Announced by Vernon Tool Co.

A new vapor recovery unit for preventing loss of vapors from volatile liquids during the loading of tank cars and trucks is announced by Vernon Tool Co., Ltd. Known as the Greenwood Vapor Recovery Unit, it can easily be connected to existing loading rack standpipe or hose units.



The Greenwood Vapor Recovery unit consists of a conical shape, lightweight aluminum housing, a Hycar rubber sealing ring, a transparent plexiglass cover, and connection for the vapor recovery hose. When attached to the fill pipe and placed in the loading dome, the Hycar ring provides a positive seal, thus preventing loss of vapors. A snap cover permits observation when filling.

For complete information, write Vernon Tool Co., Ltd., 1101 Meridian Ave., Alhambra, California.

New Lightweight Safety Cap

A sturdy, but amazingly light safety cap has just been made available by the B. F. McDonald Company, safety clothing and equipment manufacturer with offices in Los Angeles, San Francisco and Houston. Total weight is only 9 ounces.

The new Safe-T-Cap is a modification of the well known McDonald T-Hat. Its name is inspired by the visored, cap-like design and its lack of brim. The elimination of the normal full brim all around allows objects to be carried on a worker's shoulders without tipping or knocking off the cap. Its comfort and light weight make it ideal for foremen and other supervisory employees.

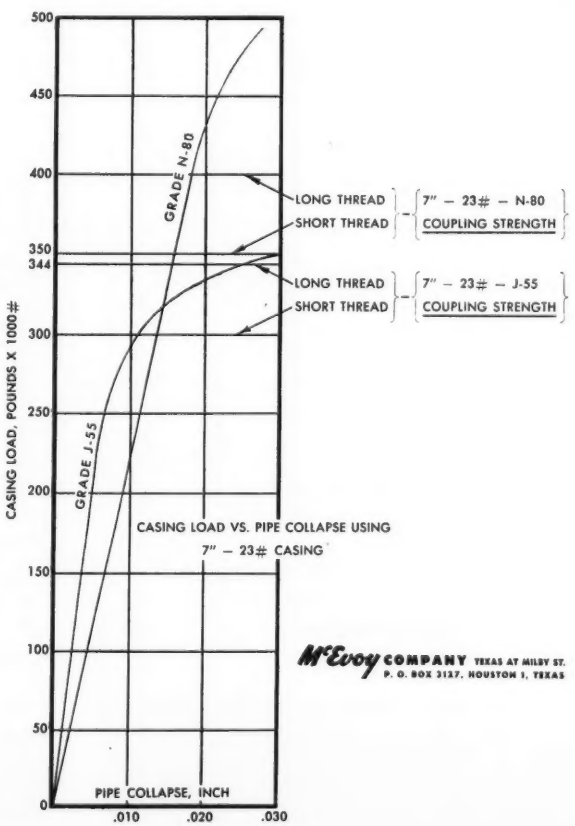
The crown of the T-Cap features the duralumin, radial ribbed construction which deflects falling objects rather than absorbing the force of the blow. A soft leather headband, fully suspended to help absorb shock and allow cooling air circulation, adjusts simply to any head size.

McEvoy Announces New Lines

McEVOY Company, Houston, Texas, has announced new lines of improved casing heads and hangers which safely hang any weight of casing string to full coupling strength, and eliminate dangerous "bottle-necking."

These "S" (step) Heads and Hangers are recommended for use in wells of all depths. Casing strings may now be designed and hung to full pipe strength, allowing the coupling strength to determine the length of casing string, or the load which may be applied with complete safety and dependability.

The above performance curves clearly show the operational characteristics of these new McEVOY Casing Hangers, which are now available in all sizes.



THIS LAUGH

OFF!!

Sometimes a man gets slapped because his hand is quicker than the aye.

"Darling let's have a secret code. If you nod, I can hold your hand. If you smile, I can kiss you."

"Don't make me laugh."

The telephone operator answered the incoming call.

"Hello," a woman's voice said. "Is this the Fidelity Insurance Company?"

The operator said that it was.

"Well, I want to have my husband's fidelity insured."

It was at the cinema, and the feature was one of those steam-heated affairs with a sultry heroine looking hungrily at a handsome hero. After some minor plot preliminaries, they went into a terrific clinch. For fully five minutes they remained wrapped up in each other. Suddenly a small, childish voice piped up from the audience: "Mummy, is now when he puts the pollen on her?"

The lion ate a bull. He felt so good he roared and roared. The hunter heard him roar and killed the lion. Moral: When you're full of bull, keep your mouth shut!

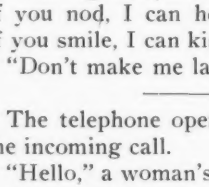
The main street of a German village had been transformed into a race track by the American Army. Jeeps and heavy trucks zoomed by constantly.

In order to protect pedestrians—especially children — the mayor posted speed limits. The soldiers cheerfully ignored them. The commander of the Army post also attempted and failed to solve the problem.

Then the mayor had a stroke of genius. At each end of the street, he posted a big sign reading: "Drive slowly, G. I.; The Child Playing in the Street Could Be Your Own!"

The child prodigy had just finished her piano selection and her doting father foolishly asked a bored visitor: "And what do you think of her execution?"

"When is it going to be?" was the eager reply.



FOR

24 Hour

Oil Field Equipment Service!

Exclusive West Coast Distributor for...

Wilson POWER RIGS and WINCHES

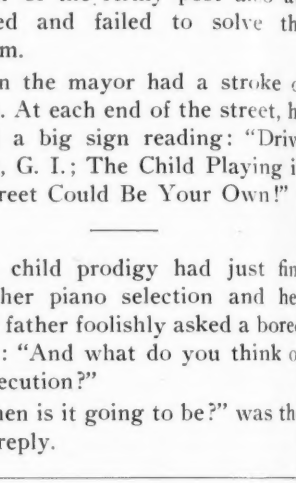
DISTRIBUTORS FOR
GAS AND DIESEL ENGINES
OIL FIELD TOOLS AND SUPPLIES

SPECIALIZED SHOP WORK
REMODELING AND REPAIR OF RIGS

USED RIGS
AND
RENTALS

POWER RIG & EQUIPMENT CO., INC.
3001 Cherry Ave., Long Beach 7, Calif.
Phones: Long Beach 407935 or ZEnith 3851 (Toll free)
Bakersfield Office: 3910 Pierce Rd., Phone 59436
Ventura Office: 1254 No. Ventura Ave., Phone Miller 39046

the BOWEN CASING THUMPER



The Bowen Casing Thumper is indispensable for landing casing in slant holes. In such holes so much friction is encountered that it is impossible to land the casing by simply lowering it into the hole and the BOWEN CASING THUMPER provides the additional force required to drive the casing down the hole.

SIMPLE CONSTRUCTION

The Mandrel and Bowl are free to move longitudinally a limited amount in relation to each other and are packed off to prevent fluid leakage from either internal or external pressure. The coupling of the tool is smaller in diameter than the Bowl insuring the ability to strike blows should the Bowl stick. All types of "inside the casing operations" can be conducted after the string is landed because the bore through the Thumper corresponds with the internal diameter of the casing.

Here's the tool that provides the force needed to drive casing down slant or crooked holes.

Write for descriptive literature.

BOWEN FISHING TOOL COMPANY
SANTA FE SPRINGS, CALIFORNIA
VENTURA · BAKERSFIELD · AVENAL · NEWHALL
CASPER, WYOMING
Export: B. P. BOWEN CO., 30 ROCKEFELLER PLAZA, NEW YORK, N. Y.